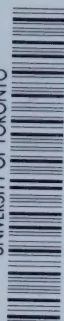


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Vol. 49 No. 7

Canadian
Dental Association

July
1983

Journal

de l'Association
Dentaire
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Guidelines: TM disorders
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Radiology
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Aspartame (mg)	60	60	60	60	75	75	75

*Registered Trade Mark of General Foods Inc. **D-Zerta is not yet available in Ontario. †Trade Mark of Searle

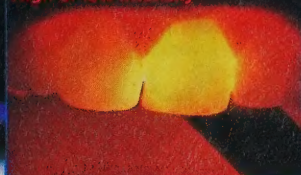
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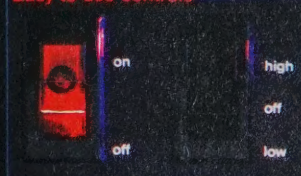
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References: 1. Ostrom, C.A. et al., J Dent Res, 56(3):212-221, 1977. 2. Arends, J., ten Cate, J.M., J Cryst Gro, 53:135-147, 1981. 3. Silverstone, L.M., Caries Res, 11 (Suppl. 1):59-84, 1977. 4. Data on file at Procter & Gamble, Inc. 5. Mobley, M.J., J Dent Res, 60(12):1943-1948, 1981. For further information, please contact Crest Professional Services, P.O. Box 355, Station A, Toronto, Ontario M5W 1C5

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**Canadian Dental Assistants
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Elaine Wesley

Cover Photo: See story on Page 460

Vol. 49 No. 7
July 1983
Canadian Dental Association
ISSN 0007-1226

Journal



Guidelines: TM disorders
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Radiology
Radiologie

Guidelines:
TM disorders

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Radiology

Editorial

- 437** The Journal Editor urges readers to continue expressing opinions in written form via letters to the editor or the new "Opinion" page.

An Opinion

- 445** Drs. R. H. Roydhouse and T. J. Harrop believe dentists should declare war on periodontal disorders and "defeat it as dental caries has been."

In the News

- 448** **U. of T. researchers awarded major MRC grant.**
Five members of the Faculty of Dentistry of the University of Toronto have been awarded a \$1.25 million grant.
- 449** **Federal funding available for health projects**
A compilation of information about federal Health and Welfare department funding for health projects.
- 451** **P.E.I. children's dental plan cut despite protests.**
Treatment for patients aged 13 to 16 has been cut from that province's Dental Care Program.
- 452** **Official luncheon, table clinics and 'Party of the Century' featured in Manitoba celebration.**
Manitoba dentists marked the most important milestone in that province's dental history on May 14.
- 453** **Dr. Kevin Roach assumes presidency of Ontario Dental Association**
Dr. Kevin Roach, of Pembroke Ontario, received the ODA President's chain of office on May 17.
- 454** **Conscious sedation standards set in Québec**
The Bureau of Directors of the Ordre des dentistes du Québec recently established minimum standards for the practice of conscious sedation in that province.
- 458** **Royal College Symposium program in Vancouver, Sept. 26**
Speakers and themes of the RCDC Symposium in Vancouver.
- 461** **No fluoride shortage foreseen this year.**
Circumstances that created serious fluoride shortages in 1982, do not exist this year, a CDA Journal survey reveals.

461 Dr. David Peters awarded Fellowship in American College.

Dr. Peters, a past-president of the CDA and the Newfoundland Dental Association, will be inducted as a Fellow of the American College on October 1.

Briefly

- 462** Dental news items from across Canada and around the world, are highlighted.

CDA Resource Centre

- 464** The CDA Library/Resource Centre lists articles available on the subject of **Economic Management**. Also included is a list of new acquisitions in the Library.

Publications

- 467** **Principles and Practice of Operative Dentistry.**
"All things considered, this is one of the best texts available for instructing dental students in operative dentistry."
— Dr. Carl Osadetz
- 468** **Removable Partial Prosthodontics (2nd Ed.)**
"The author's aim is to 'present the basic concepts and principles of removable partial denture treatment, with emphasis on clinical procedures.' This has been accomplished."
— Dr. A. H. Fenton

Scientific

- 480** **ADA guidelines on examination, diagnosis and management of TM disorders endorsed in Canada.**
Because of the importance of the guidelines established by the ADA President's Conference in 1982, they have been endorsed in Canada also.
- 483** **The extraoral lateral oblique radiograph: A radiation-efficient replacement for the pantomograph.**
— R. G. Stephens, et al.
- 491** **Benign hemihyperplasia of the mandible.**
— A. Ruprecht, et al.
- 454** RRSP
- 460** Obituaries
- 493** Announcements
- 495** Marketplace
- 496** Advertisers' Index

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Notice of change of address should be received before the 10th of the month, to become effective the following month.

Subscriptions: All subscriptions payable in advance in Canadian funds in Canada — \$35; United States — \$35; all other — \$38. Subscriptions are for 12 editions, not necessarily conforming with the calendar year.

All statements of opinion and supposed fact are published on the authority of the author who submits them and do not necessarily express the views of the Canadian Dental Association, unless such statements or opinions have been adopted by the Association. The editor reserves the right to edit all copy submitted to the Journal.

ISSN0709 8936

Éditorial

- 438 La rédaction du Journal invite ses lecteurs à continuer à exprimer leurs opinions soit en écrivant au rédacteur en chef, soit en préparant un article pour la nouvelle rubrique qui portera justement comme titre: "Opinions."

Point de vue

- 446 Selon les Drs R. H. Roydhouse et T. J. Harrop, les dentistes devraient combattre les maladies parodontaires et les éliminer tout comme ils ont réussi à éliminer les caries dentaires.

Actualités

- 470 **Trois étudiants dentaires obtiennent des bourses de recherche Terry Fox**
L'Institut national du cancer du Canada a annoncé les noms des étudiants dentaires qui ont obtenu des bourses de recherche pour l'année 1983.
- 471 **Subventions d'Ottawa pour les programmes de la santé**
L'ADC a réuni des renseignements touchant les subventions que Santé et Bien-être social Canada accorde aux programmes de la santé.
- 475 **Données touchant l'assurance dentaire — CDSPI**
Les Régimes des rentes et d'assurance subventionnés par l'ADC viennent d'établir les statistiques touchant la participation au Régime d'assurance des dentistes du Canada.

477 Programme du Symposium du Collège royal des dentistes du Canada à Vancouver

Les Symposium du Collège royal des dentistes du Canada aura lieu le lundi, 26 septembre, à l'hôtel Vancouver.

478 Aucune pénurie de fluor prévue cette année

D'après un sondage du Journal de l'ADC, les conditions qui ont entraîné de sérieuses pénuries de fluor l'an dernier ne se retrouvent plus cette année.

Le Dr Peters devient membre de l'American College of Dentists

Le Dr David Peters, ancien président de l'ADC et de l'Association dentaire de Terre-Neuve, sera reçu membre de l'American College of Dentists (le Collège américain des dentistes) le 1^{er} octobre prochain.

En bref

- 479 Un tour d'horizon des principales informations dentaires du Canada et dans le monde.
- 464 **Bibliothèque et centre de documentation de l'ADC**
La Bibliothèque et le Centre de documentation de l'ADC présentent une liste des articles disponibles sur le sujet de gestion économique.
- 475 REER
- 460 Nécrologies
- 493 Avis
- 495 Petites annonces
- 496 Index des annonceurs

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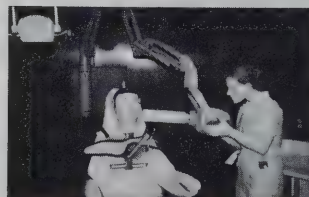
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Photo de la couverture: Voir l'historique en page 475

Journal



Guidelines: TM disorders
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La direction du Journal ne partage pas nécessairement les opinions qu'expriment ses collaborateurs à moins que l'Association Dentaire Canadienne ne les ait adoptées officiellement.

ISSN 0709-8936

LET'S MAINTAIN THE MOMENTUM

The Readership Survey has proved to be a very useful and constructive exercise. We are particularly grateful to the many readers who took the time and opportunity to express frank opinions about all aspects of the Journal.

The comments are being assessed and a report will be provided at the earliest opportunity.

Already we are moving to implement some of the improvements recommended. Several of the problem areas may be addressed at once in plans to revamp the layout and content, not too far down the road.

Again, on the basis of the numbers of respondents to the Readership Survey, there are obviously many readers who have been waiting for such an open line of communication to express thoughts about the Journal and probably, on a number of other matters.

But don't stop now!

We want you to continue to provide input through our Letters to the Editor pages.

Granted, letters to the editor are signed, but that doesn't mean writers so identified will be pilloried or drawn and quartered, for freely expressing opinions, however volatile they may be.

Normally, the reverse is true.

Those who participate are admired for strong stands.

And they instigate counter-opinions from others, who might not otherwise be goaded to write a letter to the editor.

None of us will deny that the liveliest and most interesting feature of any publication is that section where readers participate in sometimes heated written debates.

There are plenty of areas of dentistry where matters are not as they should be, and where problems and conditions are demanding answers. Some of your colleagues may possess those answers.

The Letters to the Editor pages of the Journal are YOUR forum, just as much as the invitation to answer Readership Survey questions was.

We are also expanding the scope of that forum.

In this edition of the Journal, you will note that there is an "Opinion" page. This is for those who wish to expound at greater length on an important subject or make position statements of vital interest to the profession. These will preferably be from 1,200 to 1,500 words in length.

Therefore, if you are among those who didn't answer the Readership Survey questions and regret missing the opportunity, then by all means, don't hesitate to use these continuing alternatives.

Our doors are open wider than ever before and it is obvious that this can be mutually beneficial.

Don't allow the momentum to slacken!

Clarence Metcalfe
Editor

Maintenant, ça bouge...

Le sondage que le Journal a effectué auprès de ses lecteurs s'est révélé très utile et constructif.

Nous tenons à remercier les nombreux lecteurs qui ont pris le temps d'exprimer avec franchise leur opinion sur tous les points du Journal.

On est maintenant en train d'étudier les différents commentaires fournis et de les évaluer. Un rapport en sera donné à la première occasion.

Déjà, cependant, nous avons pris des dispositions pour tirer profit des recommandations qu'on nous a faites. Très prochainement, en effet, il se peut que, dans les projets formés pour moderniser la mise en page et améliorer le contenu, nous éliminions plusieurs problèmes d'un seul coup.

Une fois de plus, si on considère le nombre des personnes qui ont répondu au sondage, il est évident qu'un grand nombre de lecteurs attendaient l'occasion d'exprimer leur avis sur le Journal et, vraisemblablement, sur plusieurs autres sujets.

Aussi ne faut-il pas qu'on en reste là!

Nous voulons que vous continuiez à nous faire part de vos idées en écrivant à la rédaction.

Il est vrai que les lettres adressées au Journal sont signées. Toutefois, cela ne signifie pas nécessairement que leurs auteurs seront villipendés. Chacun a le droit d'exprimer librement son avis, même s'il met le feu aux poudres.

Habituellement, c'est plutôt le contraire qui est vrai et on applaudit ceux qui osent s'exprimer. Ils ouvrent la port

à la discussion, suscitant des avis contraires de la part de personnes qui, autrement, seraient restées silencieuses.

Tous admettent que la rubrique la plus animée et la plus intéressante d'une publication est celle où les lecteurs s'engagent dans un débat passionné.

En dentisterie, il y aurait plusieurs choses à changer, plusieurs problèmes à solutionner et plusieurs questions à poser aux membres. Qui sait? quelqu'un parmi vous peut connaître les réponses.

Dans le Journal de l'ADC, la rubrique des lettres à la rédaction constitue votre tribune au même titre que le sondage auprès des lecteurs. Nous projetons de donner plus d'importance à cette tribune.

Dans ce numéro, vous noterez qu'il y a une page pour les "opinions." Elle est destinée à ceux qui veulent s'étendre longuement sur un sujet important ou faire des déclarations d'intérêt capital pour la profession. Idéalement, ces textes devraient avoir de 1 200 à 1 500 mots.

Si vous êtes de ceux qui n'avez pas répondu au sondage et qui regrettez d'avoir laissé échapper cette occasion, n'hésitez pas à recourir à ces moyens de vous exprimer.

Maintenant plus que jamais, nous sommes prêts à vous écouter, persuadés qu'un échange d'idées sera profitable à tous.

Et puisque l'élan est maintenant donné, il faut maintenant continuer!

*Le rédacteur en chef,
Clarence Metcalfe*

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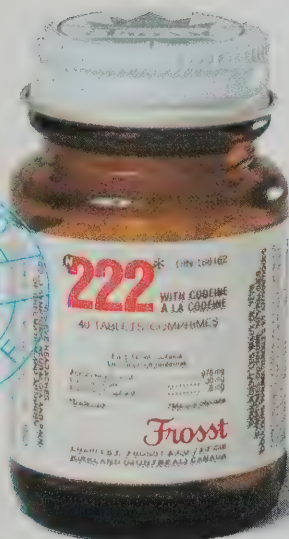
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Membership in the Federation Dentaire Internationale for 1983 is now open for new or renewed membership. Supporting membership from Canada and attendance at the Vienna Congress in 1982 was significant and it is hoped that such support will continue. After the March 1983 issue, only those who renew their membership will continue to receive the Newsletter and in addition, it is necessary to be a supporting member to attend the outstanding Congress planned for Tokyo, Japan on November 14-20, 1983.

Registrants to FDI world congresses must be supporting members of the Federation. To be eligible for supporting membership, Canadian dentists must be members of the Canadian Dental Association.

The subscription fee is \$35 (Canadian) or in combination with a subscription to the International Dental Journal \$60 (Canadian). We urge you not only to become a member but to encourage your colleagues to join as well.

Your membership fee is your contribution in support of FDI in its efforts to promote improved dental health on a worldwide basis in direct exchange of scientific knowledge and expertise. A portion of the fee will also be used by the CDA to offset administrative expenses associated with the FDI membership program.

Please return the attached form with your remittance without delay to the Canadian Dental Association, 1815 Alta Vista Drive, Ottawa, Ontario K1G 3Y6.

Application forms for the Tokyo Congress will be sent with your receipt and 1983 membership card.

CANADIAN DENTAL ASSOCIATION
1815 Alta Vista Drive, Ottawa, Ontario K1G 3Y6

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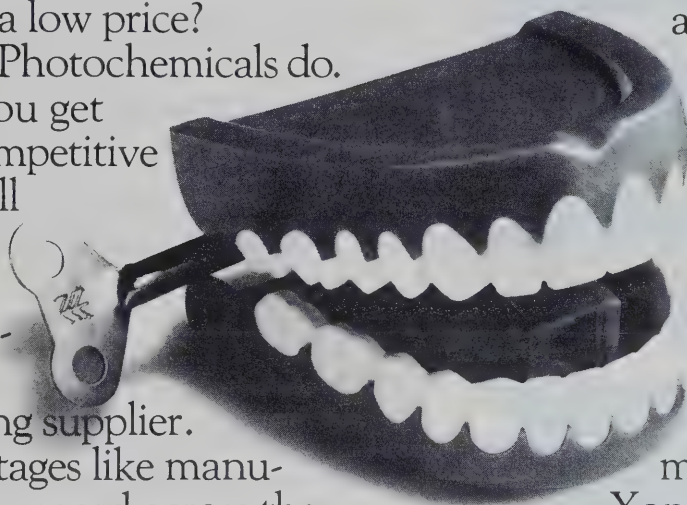
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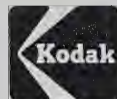
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Dental directions: defeat periodontal disease

Confused? Well so are we. We seek direction from our reading. If we are confused, maybe we have to give up reading! The Journal and other publications tell us about declining numbers of patients due to fluoridation and increasing numbers of dentists, and thus the economic future is doubtful. When we graduated in 1950 we looked back to see what dental practice was. Dentists looked after families. The course of treatment was simple, direct and probably ineffective. Caries was cut out and replaced with amalgam or silicate cement. After 20 years of such treatment exodontia commenced, and 10 years later full dentures were made. Oral health was maintained by excision. But today we see an increase in urbanization and the development of fluorides — as in water supplies, dentifrices, topical and so on leads to restorative dentistry only after prevention failed. So we have developed complicated systems of crown and bridge work and the skills of endodontia.

However even the need now for those elevated services is declining, and the number of dentists per population constant has increased. But that is not why we are confused. We have welcomed the disappearance of six year old children with abscesses on all molars, the disappearance of edentulous 16-year-olds and the oral rape of nubile 21 year olds — common sights before fluoride. Today's state of dentistry and looking forward, is supposed to be gloomy; welcome to the Empty Appointment Book Syndrome!

And we are becoming dismayed by the sales of all manner of snake oil to lubricate the practice. Any day now set to music we expect to hear "TMJ is the way, TMJ gets the pay, what do you say, yeh yeh".

Ask yourself why do people in Canada now lose their teeth? And the answer is periodontal disease. What do dentists do about this? Two levels of operation — cleaning and arcane surgery — the first better done by dental hygienists than by us, the second a matter of specialty.

In vain we have sought some sign of periodontal diagnosis and therapy for dentists. We find that the toothbrush and floss and the scale-and-clean are the basis of prevention, after that zippo! And yet nearly *every* mouth we see has indications of "perio".

To see into the future to the year 2001, the CDA and provincial associations have used economists and analysts who foretell the future based upon the past. We have read

a good monograph on the future, and it tells us that if we go on as we are doing today, there will be an excess demand only for the Diagnostic Services, Prosthodontics and Surgery. As well they show "Perio" as occupying 3.2 per cent of our time today, and in 2001 this will decline to 2.8 per cent.

What sort of madness is this in our view of the future of ourselves? Three percent of our time spent on the major threat to dental health, and to be flippant, spending the rest of the time diagnosing teeth that need to be extracted so they can be replaced!

We also have read a market survey done in Canada. Of 600 people in all of Canada, 61 per cent were somewhat to very concerned about gum disease — of the residents of Ontario 75 per cent were concerned, and the least was 57 per cent in B.C. and 40 per cent in Quebec. We cannot therefore dispute (a) that "perio" is the basis of most dental disorder today or (b) the patients now know it.

We know not of a simple classification of periodontal disease which points the way to treatment, and associated array of technical steps and materials for such treatment. Not for one minute are we decrying the work of those in the field of periodontia. Rather we are urging periodontia to take over the hubris, the technological assets and the whole philosophy of 80 years of restorative dentistry.

Let's put dentistry in Canada to the task it must undertake — gums, to be blunt and direct. In fact we will try an outline of our own in a future Journal issue. Let's channel our thoughts, efforts, finances to the development of periodontal therapy to fill the gap left by the disappearance of deep caries. Let's not teach the dental student more and more esoteric restorative techniques and pump up minor disorders into disasters. At best, 15 per cent of the population in their lifetime has TMJ problems — at least 99 per cent will have periodontal problems.

A declaration of war on periodontal disorders by all dentists be they the sole practitioner in Spuzzum, the Professor of Dentistry, the CDA Board member, the Medical Research Council — whatever his/her role — let's define periodontal disease as common "property", and defeat it just like dental caries has been.

*Dr. R.H. Roydhouse
Dr. T.J. Harrop
Vancouver, B.C.*

L'avenir de la dentisterie

Êtes-vous confus? Nous confessons que nous le sommes. Nous cherchons à nous orienter par nos lectures, mais celles-ci nous confondent davantage et peut-être devrions-nous les mettre de côté. Le Journal et d'autres publications nous apprennent que le nombre des patients diminue à cause de la fluoruration et du plus grand nombre de dentistes et que, par conséquent, notre avenir économique est incertain. En 1950, quand un dentiste obtenait son diplôme, il se tournait vers le passé pour savoir en quoi consistait l'exercice de la profession dentaire. À l'époque, les dentistes s'occupaient des familles, les traitements étaient simples, directs et probablement inefficaces. Les caries étaient enlevées et les cavités, remplies avec un amalgame ou un ciment au silicate. Après 20 années de ce régime, apparaissait l'exodontie et, dix ans plus tard, le patient avait besoin de prothèses complètes. La santé dentaire se maintenait par excision. Aujourd'hui, cependant, l'urbanisation s'est accrue, et parce qu'on utilise davantage du fluor dans les réserves d'eau potable, les dentifrices, les traitements topiques et ainsi de suite, la dentisterie est devenue une question de restauration et de prévention. Les dentistes ont ainsi mis au point les couronnes, les ponts et tous les traitements de l'endodontie.

Néanmoins, le besoin pour ces services sophistiqués a décliné et le nombre de dentistes par rapport à la population a constamment augmenté. Cependant, tel n'est pas le sujet de notre confusion. Nous sommes heureux que les enfants de six ans n'aient plus d'abcès à toutes les molaires, que ceux de 16 ans ne soient plus édentés et qu'on n'ait pas à extraire toutes les dents des personnes âgées de 21 ans. Ces cas n'étaient pas rares avant l'utilisation du fluor. Aujourd'hui, la dentisterie semble traverser des heures sombres et l'avenir ne paraît pas s'annoncer meilleur. Tout dentiste peut craindre de voir son cahier de rendez-vous devenir inutile.

En outre, il y a de quoi être désarmé quand on voit tout l'attirail de produits qui se vendent pour faciliter l'exercice de la dentisterie. On peut s'attendre à tout moment que la radio se mette à fredonner un air entraînant pour vanter les avantages des troubles temporo-mandibulaires pour le dentiste.

Demandez-vous pourquoi les Canadiens perdent maintenant leurs dents. La réponse: les maladies parodontaires. Et que font les dentistes? De deux choses l'une: ou bien ils nettoient les dents des patients, ce que peut faire mieux qu'eux une hygiéniste dentaire, ou bien ils procèdent à quelque opération compliquée, ce qui est alors le fait du spécialiste.

Nous avons cherché en vain des diagnostics et des traitements parodontaires auprès des dentistes. Nous savons

que la brosse à dents, la soie dentaire ainsi que le détartrage et le nettoyage complets des dents sont la base de la prévention, mais après cela, mystère! Pourtant, presque tous les patients souffrent de parodontie.

Pour voir ce que le futur nous réserve jusqu'à l'an 2001, l'ADC et les associations provinciales ont fait appel à des économistes et à des analystes qui prédisent l'avenir d'après l'expérience du passé. Suivant une excellente monographie portant sur les années à venir, si les tendances actuelles se maintiennent, seules les demandes touchant les services de diagnostic, la dentisterie prothétique et la chirurgie seront en grand nombre. En outre, les maladies parodontaires qui occupent 3,2 pour cent de notre temps actuellement, n'en occuperont que 2,8 pour cent en 2001.

Est-ce là une façon sensée de considérer notre avenir? Nous passerons trois pour cent de notre temps à soigner la maladie qui constitue la principale menace à la santé dentaire et, avec une désinvolture sans pareille, nous dépenserons le reste du temps à faire des diagnostics pour des dents qu'il faudra extraire et remplacer.

Nous avons également lu une étude du marché effectuée au Canada. Sur 600 personnes interrogées dans tous le pays, 61 pour cent se souciaient des maladies gingivales: 75 pour cent en Ontario, 57 pour cent en Colombie-Britannique et 40 pour cent au Québec. On ne peut donc nier le fait que les maladies parodontaires forment la base de la plupart des troubles dentaires aujourd'hui, ni que les patients l'ignorent.

Il est temps que la dentisterie au Canada assume la tâche qui lui revient et, pour parler uniment, s'occupe des gencives. De fait, nous tenterons d'établir un programme dans le Journal. Tournons nos pensées, nos efforts et nos ressources financières vers l'élaboration de thérapies parodontaires afin de combler les vides laissés par la disparition des caries. Cessons d'enseigner aux étudiants dentaires des méthodes ésotériques de restauration et de transformer des fautes mineures en un fouillis extraordinaire. Au maximum, 15 pour cent des gens auront des problèmes temporo-mandibulaires durant leur vie, alors que 99 pour cent d'entre eux auront des problèmes parodontaires.

Que tous les dentistes — qu'ils soient le seul praticien d'une petite ville perdue, un professeur de dentisterie, un membre du Conseil d'administration de l'ADC ou un membre du Conseil des recherches médicales — déclarent la guerre aux maladies parodontaires! Que tous considèrent que les gencives font partie de "leur domaine" et que tous se proposent de triompher des maladies gingivales comme ils ont triomphé des caries.

*Les Drs R.H. Roydhouse et T.J. Harrop,
Vancouver (C.-B.)*

1 Buy Protection — Not Frills

Many insurance companies offer options on insurance policies which add extra benefits for extra cost. For example, a disability policy might cover accidental death as an optional extra, or provide additional benefits if you're confined to hospital. Buying this "combination" coverage is usually more expensive than buying separate policies for each coverage.

2 Watch Those Deductibles

When you buy a low "deductible" you get a little more protection — but a lot more cost. On Office Contents' Insurance you'll save 10% to 15% each year with a \$500 deductible instead of \$250. Are you still buying \$100 deductible on collision insurance for your car? You'll save substantially with \$250.

3 Shop

You'll find big differences in cost for comparable policies from different companies. For \$250,000 of five-year term life insurance, renewable to 65, Company A would charge \$1,395 annually to a 45-year-old dentist. Company B would charge \$1,200 and Company C only \$890. (The Canadian Dentists' Insurance Program's rate is only \$839.) How can you be sure the coverage is comparable? Your profession's own insurance plan will be glad to help you. Call us first.

4 An Ounce of Prevention

A few simple steps can help prevent serious losses in your office, and that's the best way of all to keep costs down. Don't keep more than a bare minimum of gold or amalgam in your office. Make sure you have proper locks, doors, and windows. Turn off the water supply to your chair when you leave. If you're looking for new office space, check carefully for adequate security and fire-prevention features.

5 Look at Old Policies

Old life insurance policies, bought 15 or 20 years ago, may have lost much of their protection value through inflation. In many cases, it's better to terminate the policy and use the "cash surrender value" for investment or paying down a mortgage.

How much do you spend on insurance in a year?

For many dentists, the annual bill is \$3,000 to \$5,000, or even higher.

Your Association's own insurance program is pleased to provide these money-saving suggestions.

If you'd like to cut insurance costs

Here are ten ideas to think about

6 Why Pay in Advance?

When an insurance company says your life and disability insurance premiums won't increase as you grow older, it means you're being overcharged today to pay for increases tomorrow. The insurance company has the use of money that you could otherwise be using to build your practice, pay off your mortgage, or use in other investments. The Canadian Dentists' Insurance Program doesn't offer this kind of premium arrangement because it doesn't believe it's to your advantage to pay in advance.

7 Deal With People Who Know Dentistry

As a dentist, your insurance needs are different than other people's. You need insurance advisors who know first-hand what your problems and risks are. Your Associations' plans were developed by practising dentists, working hand-in-hand with insurance professionals to make sure you'll never be saddled with coverage designed for somebody else.

8 Insurance and "Savings" Don't Mix

Some life insurance plans combine protection for dependents with savings for the future. They're usually an expensive way to buy insurance and an inefficient way to save. Often they lock your savings in, depriving you of the chance to move your money around to get the best return. It's more efficient to buy term life insurance to protect your dependents and set up a separate savings and investment program.

9 Give Yourself an Annual Check-Up

Your insurance needs change from year to year along with your age, financial circumstances, family situation, practice, and your property. Insurance changes, too, as new policies and new features (like non-smokers' life insurance rates) become available. Review your coverage and your needs thoroughly each year. You may find opportunities to reduce or eliminate some coverage.

10 Check Your Associations' Plans First

Your Associations' insurance plans are usually less expensive than the plans offered by insurance companies. When you need insurance, it pays to check with the Canadian Dentists' Insurance Program first. Even if you decide to buy elsewhere, you'll have a good benchmark for comparison.



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U of T researchers awarded major implantology program grant by Medical Research Council

The Medical Research Council recently announced a major grant of \$1,250,000 to five members of the Faculty of Dentistry of the University of Toronto. This is the first and only program grant ever awarded by MRC to a dental faculty.

The program, entitled "A Study of the Requirements for a Successful Dental Implant" will receive the funds over a three-year period for an interdisciplinary experimental investigation of the interaction between synthetic materials used to construct endosteal dental implants and living tissue. Dental implants are intended to serve as permanent replacements for natural teeth with a portion of the implant being buried in the jaw bone, while the remainder of the implant protrudes through the gum tissue to provide an anchorage point for a prosthetic appliance. In order to prove beneficial to a large segment of the population that has need for such a device, it is important that the system not only be reliable, but also inexpensive and universally usable by appropriately-trained dental practitioners. The understanding of the necessary and sufficient conditions for successful implantation is critical for the design and development and will be explored in the program.

The principal investigators are:

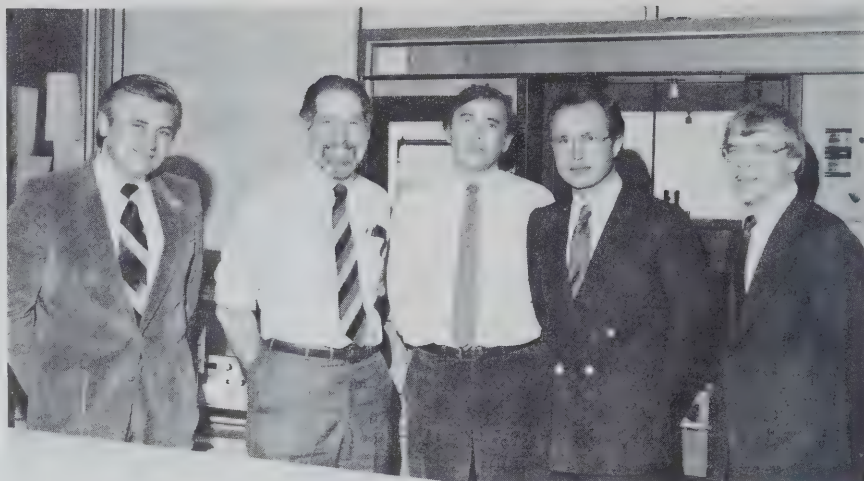
Dr. R. M. Pilliar — Faculty of Dentistry, Department of Biomaterials and Department of Metallurgy and Materials Science

Dr. D. A. Deporter — Faculty of Dentistry, Department of Biological Sciences and Periodontics

Dr. A. H. Melcher — Faculty of Dentistry, MRC Periodontal Physiology Group

Dr. D. C. Smith — Faculty of Dentistry, Department of Biomaterials and Department of Metallurgy and Materials Science

Dr. P. A. Watson — Faculty of



The principal investigators indicate their pleasure in learning of the Program Grant award. They are, left to right: Dr. P.A. Watson, Dr. A. H. Melcher, Dr. R.M. Pilliar, Dr. D. A. Deporter and Dr. D. C. Smith.

Dentistry, Restorative Dentistry.

The interdisciplinary structure of this group will permit a unique study in the field of dental implants. It will involve both basic studies on cellular interactions with synthetic materials, using cell culture techniques as well as materials selection and implant design based on previous studies of biomaterials used by members of this group in medical applications (orthopaedic and cardiovascular).

As well as providing a systematic investigation of dental implant design, it is felt that the study will define parameters for surgical implant use in general. A major portion of the program is concerned with the long term local and systemic effects of synthetic materials in the body. Dr. J. Van Loon (Department of Geology, University of Toronto) will collaborate with the group in this important aspect of the study by providing his extensive expertise in the field of atomic absorption spectroscopy.

It is hoped that the successful completion of this program will provide information for the fabrication of a successful dental implant, hopefully by a Canadian manufacturer.

WHO Fellowships

The Department of National Health and Welfare has announced details of the annual World Health Organization (WHO) competition for fellowships for Canadian citizens wishing to undertake short-term studies abroad.

All health personnel in medical, paramedical and health related fields, including dentists and dental auxiliaries, veterinarians and veterinary assistants, engineers in the field of sanitary science, nutritionists, laboratory technologists, rehabilitation specialists as well as administrators and teachers in all of these fields are eligible to apply; those engaged in pure research, undergraduate and graduate university students are not.

Applications should be submitted before August 31, 1983. Further information and application forms can be obtained by writing to:

WHO Fellowships
Intergovernmental and
International Affairs Branch
Department of National Health
and Welfare
Brooke Claxton Building
Tunney's Pasture
OTTAWA, Ontario K1A 0K9

Federal Funding Available for Health Projects

The Department of Health and Welfare has two distinct programs which fund Canadian health projects.

The Health Promotion Contribution Program (HPCP) is administered by the Health Promotion Directorate of the Health Services and Promotion Branch, Health and Welfare. Through this program, support is provided for projects designed to "inform and motivate Canadians to adopt behaviour and health practices that contribute to the maintenance of good health and the avoidance of health risks."

Charlotte Billard, National Programs Officer, Regional Services Division, Health Promotion Directorate said HPCP is not designed for research projects, but for health promotion.

"For example a dentist wishing to publish a pamphlet which promoted good dental health might approach the HPCP program for funds," she said.

Four Types of Projects

The Contribution program supports four types of health promotion projects:

1. **Resource development:** for the production and distribution of health information and education materials.
2. **Education and training:** for health education programs aimed at the public and special groups, and training programs for health professionals.
3. **Organizational development:** to assist voluntary and community organizations and self-help groups to undertake health promotion activities.
4. **Demonstration:** to test the effectiveness of innovative health promotion programs.

Professional, voluntary and other non-profit organizations are eligible

under the program. Contribution funding for projects sponsored by provincial and local organizations is managed through the Health Promotion Directorate's regional offices. Funding for projects sponsored by national organizations is managed through the Directorate's Ottawa office.

Prospective applicants may contact their nearest Directorate regional or headquarters office for information on application procedures and a copy of the program reference guide, at the following addresses:

National

Director of Regional Services, Health Promotion Directorate, Health Services and Promotion Branch, Jeanne Mance Building, Tunney's Pasture, OTTAWA, Ontario. K1A 1B4 Telephone: (613) 996-4533

Atlantic Provinces

Health Promotion Directorate, Health Services and Promotion Branch, 5409 Rainnie Drive, HALIFAX, Nova Scotia. K3J 1P8 Telephone: (902) 426-2700

Quebec

Health Promotion Directorate, Health Services and Promotion Branch, 1255 University, 5th Floor, MONTREAL, Quebec. H3B 3V8 Telephone: (514) 283-4587

Ontario

Health Promotion Directorate, Health Services and Promotion Branch, Room 410, 102 Bloor Street West, TORONTO, Ontario. M5S 1M8 Telephone: (416) 966-6483

Manitoba, Saskatchewan and Northwest Territories

Health Promotion Directorate, Health Services and Promotion Branch, Room 603, 213 Notre Dame Avenue, WINNIPEG, Manitoba.

R3B 1N3 Telephone: (204) 949-6574

British Columbia, Alberta and Yukon Territory

Health Promotion Directorate, Health Services and Promotion Branch, Suite 202, 560 West Broadway Avenue, VANCOUVER, British Columbia. V5Z 1E9 Telephone: (604) 666-6061

A brochure entitled "Health and Welfare Funding Programs" and the "Health Promotion Contribution Program Guide for Applicants, 1982" are available from the offices listed from the CDA Resource Centre.

Research funding is also available from the Department of Health and Welfare, through the National Health Research and Development Program (NHRDP). Information can be obtained on these programs by contacting: Greg Smith, Director, Research Administration Division, Extramural Research Programs Directorate, Health Services and Promotion Branch, Health and Welfare Canada, Ottawa Ontario, K1A 1B4, (613) 992-5291.

The Guides available on the various NARDP programs are listed here.

1. Canada. Health and Welfare Canada. *National Health Research and Development Program. Guide for Research Personnel Training Awards.* Ottawa, 1983, Bilingual.

The NHRDP will only support candidates who seek research training in fields closely related to public health or health services research. Candidates seeking support for research training in clinical medicine, basic biomedical sciences, natural sciences, engineering, and non-health related research in the social sciences should apply to the Medical Research Council of Canada, the Natural

Continued on next page

Sciences and Engineering Research Council of Canada, and the Social Sciences and Humanities Council of Canada, respectively.

Acceptance of a Research Personnel Training Award by a candidate involves the assumption that he/she, upon the completion of training, will engage in research in Canada, in the areas related to the goals of the NHRDP.

There are two categories of awards available:

- (a) M.Sc. Fellowships
- (b) Ph.D. Fellowships

Eligibility: Applicants must be Canadian citizens or landed immigrants and must hold an Honours Bachelor's degree (or equivalent), or a professional degree (M.D., D.D.S., B.Sc.N., etc.) or must already be enrolled in the program for which they are seeking support. The selection process is highly competitive, and high academic standing is a significant consideration. Short-term studentships require prior discussion with the NHRDP.

Submission dates: The closing date for the receipt of new applications and supporting documentation is February 15 of any given year, for funding, if approved, effective on or after September 1 of the same year.

Duration of support: M.Sc. Fellowships are tenable for a maximum of two years; Ph.D. Fellowships for a maximum of four years. The total combined period of support available to any one individual is four years.

Stipend: Based on the individual's qualifications and experience.

2. Canada. Health and Welfare Canada. *National Health Research and Development Program. Guide for Research Personnel Career Awards.* Ottawa, 1983. Bilingual.

This program has been established to encourage and support highly competent research investigators to carry out the research, development, and other related scientific activities required by Health and Welfare Canada to fulfill its functions and responsibilities in the area of promotion,

maintenance and restoration of the health of Canadians.

Health issues of recent interest have been human health problems relating to isolation and harsh climatic conditions (Canadian North), special population groups (Indians and Inuit, the elderly, the disadvantaged, and children), occupational hazards, and the economic consequences of ill health. Problems involving the prevalence of disability and the rehabilitation of the disabled have also been given visibility.

The NHRDP will only support candidates who intend to carry out research in fields closely related to public health or health care (as in item 1, first paragraph).

The four categories of support are:

- a) Post-doctoral fellowships
- b) National Health Research Scholar Awards
- c) National Health Scientist Awards
- d) Visiting National Health Scientist Awards.

Eligibility:

Fellowships: Canadian citizens or landed immigrants; completion of formal academic training:

- a) Ph.D. or equivalent research degree, or M.D./D.D.S. plus recent research degree in appropriate health field, (minimum M.Sc.).
- b) Must be prepared to acquire supervised experience in health research in a setting other than where Ph.D. or other qualifications were acquired.

National Health Research Scholar Awards: Same, plus: Must have a min. of two years post-doctoral research experience in an established research setting.

National Health Scientist Awards: Same, plus: Must have shown outstanding competence in and commitment to an appropriate area of health research during a period of at least seven years following completion of all academic training, and including at least five years of independent or collaborative research

experience in the health field.

Visiting National Health Scientist Awards: Same as in National Health Scientist Award, plus:

- a) No citizenship requirements for candidates from outside Canada,
- b) Canadian citizenship or landed immigrant status for candidates from Canada.

Submission dates: The closing date for receipt of all new applications and supporting documentation is December 1 of any given year, for funding, if approved, effective on or after July 1 of the following year.

Duration of support/appointment: Post-doctoral fellowships are awarded for a period of two years, NHRSA's for a non-renewable period of five years, and NHSA's for a non-renewable period of five years, and NHSA's for renewable five year periods. Visiting Scientists receive support for more limited periods. A scholar award can be applied for again, by an applicant who has already been a scholar award recipient.

Stipend: Based on qualifications and experience.

3. Canada. Health and Welfare Canada. *National Research and Development Program. Projects Guide.* Ottawa, 1983-84. Bilingual.

This is a guide for candidates who wish to submit research proposals for financial assistance under the NHRDP.

The primary objective of the program is to support high quality scientific activities designed to provide the information needed by Health and Welfare Canada to fulfill its statutory functions and responsibilities, including one or more of the following objectives:

- To gather and analyze data
- To contribute new knowledge or validate a new method of inquiry
- To initiate and evaluate original demonstrations in health care development, organization, and delivery
- To develop prototypes of selected

Continued on next page

P.E.I. childrens' dental program cut despite protests

May 1983 was an extra busy month for most Prince Edward Island dentists. They were trying to finish treatment begun on patients ages 13 to 16, before May 20.

"May 20 was the day that this age group was cut from the P.E.I. Children's Dental Care Program," said Dr. Ray Wenn, Secretary-Treasurer of the Dental Association of Prince Edward Island.

"Treatment either had to be finished by that date or before the 13th birthday of the child."

The provincial government's budget recently cut four years of coverage from the P.E.I. Children's Dental Care Program. Children are covered now from age four to 12 inclusive. The reduction in service to P.E.I. teenagers is expected to save the provincial government about \$500,000. The Dental Association, which has led the protests against the cutbacks, says that a saving of \$500,000 now will lead to greater expense at a later date.

In a letter from the Association to

the P.E.I. Health Minister, the effects of the cutbacks on the dental health of Island teens was explained. The letter said in part:

"By striking the 13 to 16 year old children from our program the government is jeopardizing all the effort and work of the public and private dentists, the parents and children, in achieving our present state of dental health. This age group represents those years when numerous permanent teeth are coming into the child's mouth. It can be a period of increased cavity activity. However, when these children are supervised these problems are corrected early and no damage results.

"Without the incentives offered by our Children's Dental Care Program, our Association feels that many of our Island children will not be treated until pain forces the extraction of permanent teeth. This was the situation ten years ago. Island governments and Island people have worked long and hard to establish this excel-

lent program. We are now beginning to see its positive results."

The program, which began in 1971, allowed children (before the cutbacks) between ages four and 16 to get full dental services for \$4 a child to a maximum of \$12 per family. Dental services covered by the plan include: cleaning and polishing of teeth, fluoride treatment and dental health counselling, annual examinations, x-rays, fillings and extractions, root canal treatment in front teeth, emergency care, treatment of oral infections, stainless steel crowns, biopsy, pulpotomy and preventive orthodontic services.

'One of the best in Canada'

The PEI dentists are proud of their program. Dr Wenn says "It is one of the best children's dental care programs in Canada.

"If I looked into a kid's mouth today and it was all bombed out I'd say 'when did you move to P.E.I.?'"

Provincial dental statistics bear out his view. The average P.E.I. child today has two fillings, while in 1971, before the advent of the program, the average child would have had six or seven fillings and two extractions.

Dr. Wenn said it did not appear that the provincial government was going to change its mind on the cutbacks, although the Association did get a show of support from other concerned groups.

Some groups supporting the Association's stand include the P.E.I. Dental Hygienists Association, the Nurses Association, the Medical Society, the One Parent Family Association and the Federation of Home and School Associations.

"In spite of this support, it looks as if we'll have to wait until the next provincial election to get the program changed," said Dr. Wenn.

Federal funding (continued)

innovations in systems, products, or methods related to health.

Eligibility: Any Canadian agency, institution, association, individual, or other body capable of conducting activities falling within the NHRDP terms of reference may apply for support under the program.

Submission dates: New applications and supporting documentation to be submitted by December 1 of any given year for funding, if approved, effective on or after July 1 of the following year.

The activities supported by the NHRDP include studies, research, projects, preliminary development projects, demonstration projects, and selected conferences, symposia, and

formulations of projects. Applications for formulations of proposals as well as conference support may be submitted at any time during the year. Approval of these is contingent upon the availability of funds.

4. Canada. Health and Welfare Canada. *National Health Research Development Program: Program Inventory 1979-80 and 1980-81*. Ottawa, 1982. Bilingual.

A listing of all research projects, studies, conferences, workshops, project formulations, research trainees, and career investigators assisted by the NHRDP in 1979-80 and 1980-81.

Copies of the Guides listed are available through Greg Smith at the aforementioned address or through the CDA Resource Centre.

MDA CENTENNIAL

Official luncheon, table clinics and 'Party of the Century' featured in Manitoba celebration

Manitoba dentists marked the most important milestone in that province's dental history on Saturday, May 14 — the Centennial of the Manitoba Dental Association.

The events in the Winnipeg Convention Centre began with a noon luncheon during which highlights of the past 100 years were commemorated and civic and provincial dignitaries brought greetings and congratulations. This was followed by a series of table clinics, many depicting the evolution of the profession during the century. In the evening, members of the entire dental team — assistants, hygienists, receptionists, dentists, technicians, dental nurses and suppliers — dressed in their best bib and tucker, enjoyed the "Party of the Century."

Keynote address

Dr. Ralph Crawford, a member of the CDA Board of Governors and Executive Council, and himself a past president of the MDA, presented "an overview of the last 100 years in dentistry in Manitoba."

In a fact-filled address, Dr. Crawford spoke of highlights in the profession in different eras of the past century — the founding, pioneer era, the boom years of settlement in Manitoba, the busy 1920s, the Depression years of the 1930s, the two World Wars and post-war era, and the modern era.

"It has been a very busy 100 years," he said, from the time when 17 dentists signed the first charter on July 7, 1883.

He referred to great discoveries that revolutionized the practice of dentistry and the personalities involved in Manitoba, such as the "first dentist in all the West, Dr. J.L. Benson, in 1877."

The first woman dentist, Dr. Crawford said, was Dr. Olive Coles, who



Winnipeg Mayor Bill Norrie, standing, right, presented a framed scroll of commendation to the Manitoba Dental Association's President, Dr. John Dillon, congratulating the MDA for a "remarkable achievement." Looking on is MLA Phil Eyler, left, who represented Manitoba's premier and health minister, and Dr. Robert Baker, right, chairman of the 100th Anniversary Awards Committee

came to Winnipeg in 1917. She lived and practised there until her death in 1965.

The first major influx of dentists to Manitoba occurred between 1922 and 1924, when mature dental graduates from the University of Toronto began to arrive. Dr. Crawford said soldiers during the First World War had become accustomed to good dental attention and a demand arose for dental services following that war.

First Journal editor

It was noted that a Winnipeg dentist, Dr. Harry Garvin, became the first editor of the Journal of the Canadian Dental Association early in 1935. For 17 years, Dr. Crawford said, Dr. Garvin served "for nothing" out of the back of his office.

Manitoba dentists also made a very significant contribution during the Second World War, he said. Of the 140 Winnipeg and 46 rural Manitoba dentists, 71 served in the Canadian Dental Corps.

Following the War, a new era began. Graduates who were in university during and immediately after the

war, "poured into the stream of dental services. There was a new wave of young blood," Dr. Crawford said.

In 1956, fluoridation came to Winnipeg, he said, and in 1958, the new college of dentistry of the University of Manitoba took in its first students.

In identifying "people to whom we owe so much," Dr. Crawford said "I hope and pray that what we have to give in the next 100 years will be as great and glorious as that given by the people who came 100 years before us."

Visiting dignitaries

Manitoba Dental Association President, Dr. John Dillon, who was luncheon program chairman, received a framed scroll from the City of Winnipeg, recognizing the 100th anniversary of the MDA. Winnipeg Mayor Bill Norrie, who made the presentation, said "it's a remarkable achievement. The strides made are tremendous as is the service you have given to the people of Manitoba."

Mr. Phil Eyler, MLA, representing Manitoba's Health Minister, L. Desjardins and Premier Howard Pawley, said he hoped MDA members would

take "full advantage of this occasion not only for celebration, but for self-congratulation."

Table clinics

Table clinics included displays of antique dental instruments and materials, depicted the evolution of specialty practises and illustrated modern services being supplied by Manitoba dental students to native people in Northern Canada. Also included in the displays were the first minute book of the Manitoba Dental Association, bound copies of some of the first editions of the CDA Journal and yearbooks for every graduating class of the University of Manitoba's Faculty of Dentistry, from the first to the most recent.

Party of the Century

In the evening, it was time for fun. Following the dinner, at which a catering staff paraded, with sparklers, to the music of "Happy Birthday" was the crowning touch, the fun began.

Some unusually good talent was displayed by song and dance men — some of them quite senior members of the dental profession. Hilarious musical skits in which the dentist-entertainers portrayed cowboys, Indians and many other roles, were played with gusto.

Dental auxiliaries — hygienists, assistants, nurses and receptionists, formed a very fetching chorus line and provided some exceptionally intricate dance routines on the big Convention Centre stage.

A full-length feature film — "the Gums of Navaronne" — was the pièce de resistance.

In the starring role of the hilarious but quite professionally produced film, was the Manitoba Dental Association's secretary-treasurer, Ross McIntyre.

Mr. McIntyre, suffering greatly from a toothache, posed quite a problem for several dentists and specialists at the University of Manitoba dental school.

Dean Arthur Schwartz easily got

into the spirit of the movie and declared an "emergency" so that the best minds of the dental faculty could diagnose and treat the patient suffering so grievously.

Eventually a Superman-Elvis Presley type dentist strode onto the scene, amid swooning auxiliaries and began an examination.

The production was greeted with a standing ovation by the 475 MDA members and guests at the party.

The evening drew to a close with dancing, first to a "big band" orchestra and then to the music of a flashy, talented rock music group which actually wildly spoofed rock musicians' styles and mannerisms.

Dr. Kevin Roach is new ODA President



Dr. Doug Smith congratulates Dr. Kevin Roach who received the chain of office as President of the Ontario Dental Association on Tuesday, May 17th. Dr. Roach, who practices in Pembroke, Ontario, will serve as President until May 1984.

Dr. Kevin L. Roach of Pembroke, Ontario, was installed as President of the Ontario Dental Association for 1983-84 at the ODA Convention in Toronto May 15-18. He replaces Dr. Douglas B. Smith of Belleville, Ontario.

In his acceptance speech Dr. Roach detailed some objectives he intends to pursue during his term of office.

These include increasing ODA membership. Currently the Association has 4,485 members, an increase

of 259 over 1982, many of these are new graduates. He also plans to make ODA more visible to government, the media and the public.

Dr. Roach expressed some concern over the unity of the profession and stressed the need for unity of both the dental team and of dental organizations in Canada.

"I believe strongly in the unity of the dental team and I will work to prevent further fragmentation of our profession. One of the ways we can continue to promote unity is to promote our affiliation with the Canadian Dental Association. We must support our national organization and never lose sight of the value of our contribution in Ottawa."

Two immediate concerns of the new ODA President will be to prepare a strategy in response to the new Ontario Dental Act, recently announced by the provincial government.

"We must make sure our legitimate rights as a self-governing profession are not further eroded," he told his audience.

Another immediate concern will be to ensure that the elderly in Ontario receive the proper, high quality dental care to which they are entitled.

Elected to the Executive Council of the ODA, along with Dr. Roach, were Dr. J.R. Brookfield of Kirkland Lake, Ontario, Dr. D.P. Anderson of Windsor, Ontario and Dr. R.D. Wells of Winchester, Ontario.

Conscious sedation standards for Quebec

Minimum standards for the practice of conscious sedation by Quebec dentists were recently set by the Bureau of Directors of the Ordre des dentistes du Québec.

In addition, the Comité de formation professionnelle of the Order has been given the task of accrediting all courses on conscious sedation to ensure they adhere to the minimum standards established.

The standards, as published by the Order, follow.

Definition:

Conscious sedation is the utilization of nitrous oxide and oxygen to prevent and beat the feat of pre-operative, operative and post-operative pain, without loss of consciousness. The term "relative analgesia" is inappropriate to describe the operation.

Legal Responsibilities:

1. A training course in conscious sedation is compulsory.

2. The course must be approved by l'Ordre des dentistes du Quebec or given by a body approved by the ODQ.

3. The equipment utilized must: (a) provide a minimum of 30 per cent oxygen; (b) automatically discontinue nitrous oxide supply if the oxygen level drops under 30 per cent; (c) be equipped with a gas recovery system. The dentist is responsible for the proper installation and maintenance of the equipment.

4. Only the dentist is authorized to use nitrous oxide and oxygen and must not leave the treatment room during its administration.

5. The dentist must have an auxiliary in the room at all times during the procedure.

6. The dentist must have available an emergency kit with a full face mask.

Professional Responsibilities

1. The dentist must have the theoretical and practical knowledge to:

(a) Describe accurately the essential parts of the equipment; (b) identify the function of each part of the equipment; (c) detail and discuss the indication and contra-indication of conscious sedation with nitrous oxide and oxygen;

(d) Establish and evaluate the medical history of the patient. On the medical questionnaire all the pertinent elements relating to conscious sedation must be grouped in one block and include: severe respiratory infections; respiratory pathology; asthma; blood circulation pathology; patient over 40: cardiac problems; use of medication or drugs, use of cigarettes or alcohol.

(e) Verify and interpret vital signs; (f) discuss the pharmacological aspects of pain control; (g) discuss prevention, recognition and treatment of complications associated with the use of nitrous oxide and oxygen; (h) discuss the physiology and anatomy of the respiratory system, nervous system and blood circulation related to the effects of sedation.

(i) Show ability to administer safely and efficiently nitrous oxide and oxy-

gen in a clinic; (j) take into consideration human reaction and psychological aspects of pain and anxiety; (k) have accurate knowledge of disinfectant and prevention of contamination.

2. The dentist must use this technique only when it is indicated and when the patient or his tutor understands the goals and effects, and signs a written agreement.

3. The dentist must make sure his patient has fully recovered before leaving his office and is well aware of the post-operative effects.

Academic Requirements:

1. Theoretical training must be done under the control of an anaesthetist. The other subjects within the course must be taught by a dentist or an anaesthetist with at least one year experience in pain control.

2. For the practical courses, each instructor must not have more than 10 students under his control.

The Comité de formation professionnelle of the Order will recommend that the Ordre des dentistes du Québec issue a certificate to dentists who have followed successfully an approved course in conscious sedation.

CDA Retirement Savings Plan

Unit values of the Canadian Dental Association's Retirement Savings Plan stood as follows on May 31, 1983.

<i>Common Stock Fund</i>	\$72.9715
<i>Fixed Income Fund</i>	\$36.0797
<i>Guaranteed Fund</i>	\$26.1882
<i>Balanced Fund</i>	\$14.3765

Total assets (market value) of the plan were \$36,762,684.

The previous month's figures, as of May 31, 1983, stood as follows:

<i>Common Stock Fund</i>	\$70.4839
<i>Fixed Income Fund</i>	\$36.0794

<i>Guaranteed Fund</i>	\$25.9868
<i>Balanced Fund</i>	\$14.1712

Total assets (market value) of the plan were \$36,572,766.

For further information write to: Canadian Dental Service Plans Inc., Ste. 600, 2 Lansing Square, Willowdale, Ontario M2J 4Z3 or call the central information services of CDSPI at 1-800-268-5418 (toll free number for Western Canada, Atlantic Canada and Ontario for Code 807 only), 1-800-268-3411 (toll free number for Quebec and Ontario except Code 807), and 497-7117 (Metro Toronto area).

THE TRUTH ABOUT ZOMAX*

zomepirac sodium

WE VOLUNTARILY INITIATED WITHDRAWAL OF THE DRUG. WOULD YOU HAVE MADE THE SAME DECISION?

Two years ago, ZOMAX zomepirac sodium was made available to Canadian physicians. It gained rapid

and widespread acceptance because the product is unique, filling a void in the analgesic market.

ZOMAX zomepirac sodium WAS EXTENSIVELY TESTED.

Before its introduction, ZOMAX zomepirac sodium was thoroughly tested in what could be regarded as "state of the art" clinical trials. 3600 individuals took part in an extensive evaluation program, conducted by leading investigators in the analgesic field. In comparative

studies ranging from ASA to morphine, side effects recorded for ZOMAX tablets were consistent with those reported for non-steroidal anti-inflammatory drugs as a class.

It wasn't until post-marketing surveillance that severe allergic reactions began to be noted.

THE ULTIMATE TEST: 15 MILLION ZOMAX zomepirac sodium PATIENTS.

More than 15 million patients in North America have used ZOMAX tablets in the past two years. Reported severe adverse experiences have been carefully monitored. At the time of withdrawal, there were about 1,100 reports of allergic reactions, mostly in the U.S.A., ranging from mild rash to anaphylaxis.

A year ago, after a number of anaphylactoid reactions were noted, McNEIL* Canada and U.S.A., working with the Health Regulatory officials of both countries, re-emphasized this possible adverse effect to physicians.

The situation continued to be monitored closely.

Early in 1983, McNEIL in the U.S.A. saw an acceleration in the number of reported allergic reactions (including four deaths in a two-month period). At the time of withdrawal, there were a total of five deaths reported in the U.S.A. associated with anaphylactoid reactions. Two patients were known to be sensitive to ASA (a specific contraindication for ZOMAX zomepirac sodium) and one to penicillin.

THE CANADIAN EXPERIENCE.

The number and nature of the reactions reported in Canada have not been a cause for alarm – neither McNEIL Canada nor the Health Protection Branch had been informed of any severe anaphylactoid reactions resulting in death. However, as the reports of these reactions in the U.S.A. increased in February, McNEIL (both in Canada and the U.S.A.) made a voluntary

decision to withdraw ZOMAX tablets and review prescribing patterns.

Once the decision was made, swift action was essential to alert the physician, pharmacist and patient population. The media responded very swiftly, and although certain headlines may have caused concern, we felt that rapid communication was essential.

THE CLASSIC DRUG DECISION: DOES THE RISK OUTWEIGH THE BENEFIT?

ZOMAX zomepirac sodium benefited many patients. However, the deaths reported in the U.S.A., together with the increase in the reports of allergic reactions, led us

to temporarily withdraw ZOMAX tablets while we reassess their role in the future.

WE SEE OUR RESPONSIBILITY CLEARLY.

Did we overreact? We don't think so. In accordance with our credo, we believe our first responsibility is to the health professionals, patients and all others who use our products and services. Withdrawing ZOMAX

zomepirac sodium may temporarily damage our morale, our finances, and be inconvenient to you – but when compared to the long term benefit to your patients, our course is clear.

PLEASE SHARE YOUR CONCERNS.

Your thoughts on the issues are important to us. Please let us know your comments and opinions on the actions that have been taken, and your attitude regarding

the future of ZOMAX zomepirac sodium. These should be directed to Dr. W.J. Forgiel, Director of Scientific Affairs.

 **McNEIL
PHARMACEUTICAL**
600 Main Street West, Stouffville, Ontario L0H 1L0

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BOARD OF GOVERNORS NOTICE OF MEETING

The Annual Meeting of the Board of Governors
of the Canadian Dental Association will be
held on September 23-24, 1983, at the Hotel
Vancouver, Vancouver, B.C., commencing at
9:00 a.m. on September 23rd.

It is brought to your attention that meetings of the Board of Governors are open to all members of the Association.

The Board is composed of twenty-four governors, representing members across Canada on a 1 to 500 ratio. The Canadian Forces Dental Services and student members are represented by one member each.

If you are planning to attend the 1983 Annual Convention in Vancouver, you may wish to look in on a portion of the proceedings to gain insight into the policy decisions that affect organized dentistry in Canada.

The governor(s) representing your area are:

List of Governors by Province

ALBERTA

Dr. E.F. Allison
55 — 1812, 4th St. S.W.
Calgary, Alta. T2S 1W1

Dr. D.L. Thompson
68 Clarendon Road N.W.
Calgary, Alta. T2L 0P3

BRITISH COLUMBIA

Dr. M.J.R. Leitch
22 — 1270 Ellis Street
Kelowna, B.C. V1Y 2B5

Dr. R.J. Markey
6180 Blundell Rd., Ste. 210
Richmond, B.C. V7C 4W7

Dr. T.E. Ramage
1506 — 805 W. Broadway
Vancouver, B.C. V5Z 1K1

Dr. John G. Silver
Faculty of Dentistry
UBC

2199 Wesbrook Mall
Vancouver V6T 1Z9

MANITOBA

Dr. P.R. Crawford
1201 — 233 Kennedy Street
Winnipeg, Man. R3C 3J5

NEW BRUNSWICK

Dr. R.A. Turcotte
910 McCavour Drive
St. John, N.B. E2M 4M3

NEWFOUNDLAND

Dr. Gordon Anthony
44 Torbay Road
St. John's, Nfld. A1A 2G4

NOVA SCOTIA

Dr. J. Christie
1595 Bedford Hwy., Ste. 210
Bedford, N.S. B4A 1E7

ONTARIO

Dr. B.W. Holmes
Box 79
34 Matheson St. S.
Kenora, Ont. P9N 1T6

Dr. G.E. Pitkin
2555 Victoria Park Ave.
Scarborough, Ont. M1T 1A2

Dr. K.L. Roach
351 Pembroke St. W.
Pembroke, Ont. K8A 5N5

Dr. R.R. Schiewe
536 River St.
Thunder Bay, Ont. P7A 3S2

Dr. E.G. Sonley
Faculty of Dentistry
University of Toronto
124 Edward St.
Toronto, Ont. M5G 1G6

PRINCE EDWARD ISLAND

Dr. J. Robertson
216 Linden Ave.
Summerside, P.E.I. C1N 4N4

QUÉBEC

Dr. J. Laporte
814 avenue Holland
Quebec, Que. G1S 3S2

Dr. I. Margolese
6000 Cote des Neiges
Suite 280
Montreal, Que. H3S 1Z8

SASKATCHEWAN

Dr. J.W. Niedermayer
710 — 1805 Rose St.
Regina, Sask. S4P 1Z8

STUDENT REPRESENTATIVE

Mr. D. McLeod
4 - 844 Saskatchewan Cres. E.
Saskatoon, Sask. S7N 0L4

CANADIAN FORCES DENTAL SERVICES

Brig.-Gen. J.N. Wright
Director General, Dental Services
National Defence Headquarters
101 Colonel By Drive
Ottawa, Ont. K1A 0K2

222* Tablets

INDICATIONS

For relief of mild to moderate pain, fever and inflammation as in influenza, common cold, low back and neck pain, headache, trauma, following dental and surgical procedures.

DOSAGE

Adults — 1 or 2 tablets one to three times daily; Children's dosage, when recommended by a physician: 10 to 14 years, one tablet, one to three times daily; 5 to 10 years, one-half tablet, one to three times daily.

CONTRAINDICATIONS

Gastrointestinal ulceration and sensitivity to any of the components.

WARNINGS

Salicylates increase the effects of anti-coagulants. Caution is necessary when salicylates and anticoagulants are prescribed concurrently. Also, salicylates may depress the concentration of prothrombin in the plasma. Large doses of salicylates may affect insulin requirements of diabetics. Salicylates may potentiate sulfonylurea hypoglycemic agents. Analgesic abuse (excessive and prolonged therapy) has been associated with nephropathy. TO AVOID ACCIDENTAL POISONING ACETYSALICYLIC ACID PREPARATIONS MUST BE KEPT WELL OUT OF REACH OF CHILDREN.

PRECAUTIONS

Give with caution to patients with asthma, other allergic conditions, bleeding tendencies, or hypoprothrombinemia. Salicylates can produce changes in thyroid function tests.

Observe care in use of codeine, although tolerance and addiction are rare. Give codeine with caution to patients with severe respiratory depression. Its depressant effect may be enhanced by concurrent administration of sedatives and tranquilizers.

ADVERSE REACTIONS

Acetylsalicylic acid: Gastrointestinal: dyspepsia, heartburn, nausea, vomiting, diarrhea, gastrointestinal ulceration and bleeding. Ear reactions: tinnitus, hearing loss. Hematologic: anemia, leukopenia, thrombocytopenia, purpura. Dermatologic and Hypersensitivity: urticaria, angioedema, pruritus, various skin eruptions, asthma and anaphylaxis. Miscellaneous: mental confusion, drowsiness, sweating and thirst.

Codeine: Average or large doses may cause various gastrointestinal symptoms such as nausea, vomiting and constipation.

Caffeine: May cause nausea, nervousness, insomnia, headache, vomiting, palpitation, vertigo, muscle tremor, sensory disturbances, excessive diuresis in sensitive patients. Large doses may cause gastric ulceration.

FULL PRESCRIBING INFORMATION AVAILABLE ON REQUEST

HOW SUPPLIED

222* Tablets — White, scored, engraved 222 on one side. Each tablet contains: acetylsalicylic acid 375 mg, caffeine citrate 30 mg, codeine phosphate 8 mg. Available in tubes of 12; bottles of 40, 100 and 250; plus bottles of 60 with safety cap.

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Canadian Dental Association National Convention

with

Canadian Dental
Hygienists' Association

Canadian Dental
Assistant's Association

September 25-28

VANCOUVER

83

The 1983 National Convention. Set in beautiful Vancouver, this year's schedule features a variety of interesting topics presented by recognized professionals in the field. Highlights of the Canadian Dental Association's Scientific Program, for example, include:

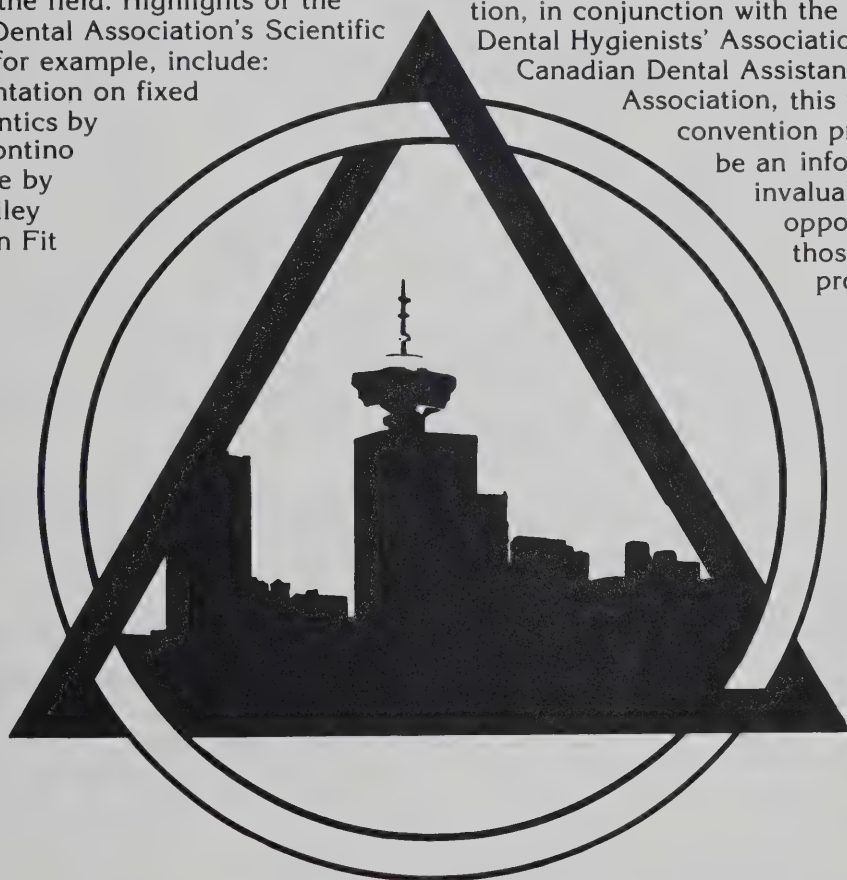
- A presentation on fixed Prosthodontics by Dr. Ray Contino
- A lecture by Covert Bailey entitled "on Fit or Fat"

A symposium on Periodontal Diseases presented by The Royal College of Dentists of Canada

Hosted by the Canadian Dental Association, in conjunction with the Canadian Dental Hygienists' Association and the Canadian Dental Assistant's

Association, this year's

convention promises to be an informative and invaluable learning opportunity for those in the profession.



For more information, please contact:

The Canadian Dental Association

1815 Alta Vista Drive
Ottawa, Ontario K1G 3Y6
or phone: (613) 523-1770

CDA Convention • VANCOUVER • Congrès de l'ADC

25-28 sept. 1983



Royal College Symposium in Vancouver

The Royal College of Dentists of Canada Symposium on the subject of Periodontal Diseases, has been scheduled in the Hotel Vancouver on Monday, September 26.

Following an introduction by Dr. James H. P. Main, President of the College, Session I will be on the subject of *Physiology and Microbiology*. Chairman of this session will be Dr. D. L. Anderson.

From 9 a.m. until approximately 9.45, Dr. D. M. Brunette of the University of British Columbia will address the subject, *Patterns of Growth and Behaviour of the Cell of the Periodontium*. From 9.45 a.m. until 10.30, Dr. B.C. McBride, also of UBC, will conduct a *Review of Microbiology of Periodontal Disease*.

Following a half-hour break, Session II, on *Immunology and Pathology*, will be chaired by Dr. Main. From 11 a.m. until approximately 11.45, Dr. D. Deporter of the University of Toronto, will conduct a session on the subject of *The Immunopathology of Periodontal Disease — Current Theories*.

Session II will begin, following a discussion period and lunch break, at 2 p.m. This session will be devoted to *Education, Prevention and Treatment*. The chairman will be Dr. A. R. Volpe.

From 2 p.m. to 2.30, *The Growth of Periodontal Education and its Influ-*

ence upon Therapy, is the theme of the session being conducted by Dr. A. L. Ogilvie of UBC.

Non-Surgical Periodontal Therapy Potentials and Limitations is the subject of the 2.30 to 3.15 p.m. portion of the session, to be conducted by Dr. J. Egelberg of Loma Linda University in California.

The final session, on *Treatment*, will be chaired by Dr. G. S. Beagrie, Dean of the Faculty of Dentistry, University of British Columbia.

From 3.30 to 4 p.m., Dr. N. Basaraba of UBC will address the subject, *Initial Therapy for Treatment of Periodontal Disease: Arrest and Progression*.

In portion two of the session, from 4 to 4.30 p.m., the subject will be, *The Role of Surgery in Treatment of*

Periodontal Disease. Dr. B. J. Laffiffe, also of UBC, will introduce this subject.

A discussion period, extending from approximately 4.30 to 5 p.m., will follow the final session.

Other RCDC events

The *Annual Meeting* of the Royal College will be held on Friday, September 23, in the Hotel Vancouver from 9 a.m. to 5 p.m.

The *RCDC Convocation* has been scheduled in Vancouver, also, on Saturday, September 24. It will be held in the Music Department, University of British Columbia.

On the same date (Saturday, September 24) the College's *Annual Dinner* will be held, at 6.30 p.m., at the Capilano Golf and Country Club, West Vancouver.

International symposium a feature of Dalhousie's 75th Anniversary

Plans have been finalized for the International Symposium entitled "Today's Research, Tomorrow's Health Care Delivery" to be held September 30-October 1, 1983, at Dalhousie University in Halifax.

Areas to be covered by the symposium include: hard tissue formation, hard tissue manipulation, hard tissue destruction and repair and hard tissue replacement.

A number of top international dental scientists will be participating. These include Drs. Dennis Smith, Tony Melcher, Leon Silverstone, Brian Hall, John Kent, Cyril Evian, Bruce Epker, Charles Jerge, Ralph Phillips and Richard Ten Cate.

Symposium registration forms and information forms are available from Continuing Education in Dentistry, Dalhousie University, Halifax N.S., B3H 3J5 or call (902) 424-2248.

Registration

1983 NATIONAL CONVENTION REGISTRATION*

Miss/Ms/Mrs.

NAME:

Dr./Mr.

(Please print for name tag)

ADDRESS:

NAME OF SPOUSE, IF REGISTERED

IF EXHIBITOR, COMPANY NAME

Please check appropriate category:

☐ Dentist

☐ Assistant/Office Personnel

☐ Student

☐ Hygienist

☐ Technician

☐ Spouse

(Bringing employer to
Wednesday brunch:

☐ Exhibitor

☐ Other (please specify):

Yes ____ No ____)

Member:

☐ Yes: of _____ CDA, CDHA, CDAA)

Registration Fee (Please see page 460 for schedule of fees)

\$ _____

Spouse

\$50.00

Tuesday President's Gala Evening

\$75.00 per couple

\$40.00 single

Additional Tickets for Aquarium Visit

\$15.00 each

Daily Registration

☐ Hygienist

Will attend on

day(s)

☐ Assistant

Total Amount of Enclosed Cheque

\$ _____

Make cheque payable to the Canadian Dental Association and mail to:

Canadian Dental Association

1815 Alta Vista Drive

Ottawa, Ontario K1G 3Y6

Cancellation Policy

Cancellations are accepted only in writing before September 1, 1983 for a full refund. Any cancellations received after that date will be subject to a 25 per cent administrative charge.

Register before August 1 and become eligible to win, from CP Air, two complimentary tickets to any of their world destinations.

1983 National Convention

Category		Registration Fee
Dentist	CDA Member/Foreign Dentist	\$195 ^a (\$225 after Aug. 1)
	Non Member	\$250 ^a (\$275 after Aug. 1)
Hygienist	CDHA Member/Foreign Hygienist	\$110 ^b (\$120 after Aug. 1)
	Non Member	220 ^b (\$240 after Aug. 1)
Assistant/Office Personnel	CDAA Member	\$110 ^c (\$120 after Aug. 1)
	Non Member	\$165 ^c (\$175 after Aug. 1)
Technician		\$75 ^d
Student		No Fee ^d
Others		\$75 ^d
Spouse		\$50 ^e
Daily Registration*		
Hygienist	CDHA Member/Foreign Hygienist	\$50 ^f
	Non Member	\$100 ^f
Assistant/Office Personnel	CDAA Member	\$50 ^g
	Non Member	\$75 ^g

*On-site daily registration is available for Assistants and Hygienists.

Privileges extended

- a) includes access to all scientific sessions, commercial exhibits, three luncheons, Tuesday breakfast, Sunday registration party, Monday reception. Does **not** include Tuesday President's Gala Evening.
- b) includes access to CDHA and open scientific sessions, exhibits, Sunday harbour cruise and registration party, Monday lunch and evening reception, Tuesday aquarium visit and Wednesday brunch and learn.
- c) includes access to CDAA and open scientific sessions, exhibits, Sunday registration party, Monday luncheon and evening reception, Tuesday aquarium visit and Wednesday breakfast.
- d) includes access to scientific sessions and exhibits only.
- e) includes access to all open scientific sessions and exhibits, Sunday afternoon coffee get-together and evening registration party, Monday lecture series, luncheon and evening reception, Tuesday tours, Wednesday brunch, early bird fitness classes each morning.
- f) includes access to scientific sessions and commercial exhibits and social event of the day. Monday includes luncheon. Tuesday includes Aquarium visit. Wednesday includes brunch and learn.
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Cover story

The Journal cover this month is in keeping with the scientific theme of this edition — Radiology.

The setting is the Dental Department of the Allied Health Section of the School of Health Sciences, Algonquin College of Applied Arts and Technology in Nepean, Ontario, near Ottawa.

A student of the Dental Department is seen getting acquainted with correct procedure in oral radiography, using a dummy head.

The student, Ghislaine Roberge, of Ottawa, was graduated in the Class of '82, as a Dental Assistant.

The Journal acknowledges with thanks the courtesy and cooperation of the Algonquin College Dental Department Dean, Mrs. Adrienne MacLaughlin and Acting Chairman of the Allied Health Section, Kathy Thom.

Obituaries/ Nécrologies

ECHLIN, R.E.: Dr. Echlin, a resident of Burlington Ontario, graduated from the University of Toronto in 1952. He was born in 1922.

LUKE, RALPH: Dr. Luke, a resident of Winnipeg, Manitoba, was a life member of the Canadian Dental Association. Born in 1908, he graduated from the University of Toronto in 1933.

McKEE, GEORGE H.: Born in Southampton Ontario, in 1894, Dr. McKee graduated from the RCDS, Toronto, in 1920. He practised in both Paisley and Owen Sound Ontario, until his retirement in 1977.

No fluoride shortage foreseen this year in Canada

Supplies of hydrofluosilicic acid (HFS), a fertilizer byproduct used in fluoridating water supplies have become adequate this year.

Last year, because of a depressed fertilizer industry, HFS supplies dwindled, leaving cities like Edmonton and Toronto with diminished or no fluoridation for periods of time. The results of a survey by the Journal indicate that there are now sufficient fluoride supplies.

The four major centres which use HFS for fluoridating water supplies are Winnipeg, Edmonton, Metro Toronto and Halifax-Sackville.

According to I.B. Henderson, waterworks engineer for the City of Winnipeg, there was a threat of an HFS shortage for that city last summer but supplies kept coming and a shortage never materialized.

"We got low on supplies, but just when it looked like we were going to run out, another shipment would come in," he said. "This year the situation is better and the threat of a shortage is definitely less pronounced."

The shortage in Edmonton only lasted for six weeks. Dr. André Lazare, Fluoridation Officer for Alberta, said all the stock of HFS is coming in and no shortages are expected this year.

The western Canadian supplier of HFS, Cominco, supplies Edmonton, Lethbridge, Cranbrook, Kelowna, Kamloops and the US city of Seattle.

Gerry Hoogmoed, Sales Co-ordinator for Cominco, said fertilizer production is running at normal levels and that no shortage of HFS is expected at all this year.

The supplier of HFS to eastern Canada, including major centres in Ontario and Quebec is CIL Inc of Willowdale Ontario. Bruno Lenarduzzi, head of product management

for CIL, told the Journal there would be no shortage in eastern Canada this year either. Cities supplied by CIL include Metro Toronto and Ottawa as well as several municipalities in Quebec.

Improved late in 1982

"CIL has had no trouble since late 1982 in supplying our customers with HFS. All of our known customers have been supplied with all the HFS they require and none have been put on allocation," said Mr. Lenarduzzi.

The only centre in the Atlantic provinces that uses HFS for fluoridation is the Halifax-Sackville area of Nova

Scotia. Dave Grantham, public health engineer for Halifax, said when HFS was in short supply last summer, fluoride concentrations were reduced in the water supply but not discontinued.

"We expect no problems in the Halifax-Bedford-Sackville water supply this year and fluoride concentrations have been at normal levels since early February 1983," said Mr. Grantham.

The other Atlantic provinces use sodium fluoride for fluoridation purposes and supplies were not short last summer and are not expected to be short this year.

Dr. David K. Peters awarded Fellowship in American College

Dr. David K. Peters of St. John's, Newfoundland, past-president of the Canadian and Newfoundland Dental Associations and present Chairman of the Canadian Fund for Dental Education, has been nominated for a Fellowship in the American College of Dentists and will be inducted on October 1, in Anaheim, California, during the American Dental Association Convention.

A graduate of Dalhousie University, Faculty of Dentistry, in 1950, Dr. Peters has been a general practitioner for 32 years.

He served as President of the Newfoundland Dental Association in the 1957-58 term and was Registrar of the Newfoundland Dental Board from 1969 to 1978. He was chairman of the committee to revise the provincial Dental Act in Newfoundland in 1968 and has been a consultant for the

Newfoundland Medicare Plan since its inception.

Dr. Peters serves as a member of the provincial health council in Newfoundland and is dental consultant for the Mutual Life company. He is a member of the Canadian Public Health Association and also the Canadian Society of Forensic Dentistry.

He was President of the Canadian Dental Association in 1972-73. During his many official capacities, Dr. Peters has prepared briefs for the Newfoundland and Canadian Dental Associations on such matters as dental legislation, denturists, anaesthesiology and utilization of dental auxiliaries.

From 1972 to 1978, he served as a Government of Canada appointee to the Standards Council of Canada as dental representative.

He is a Fellow of the International College of Dentists.

Briefly —

New Brunswick no longer has a dental program for social service patients.

As of June 1, 1983, the provincial government of New Brunswick eliminated dental care to patients up to age 18, to achieve a balanced budget.

Dr. Jack Thompson, Executive Director of the New Brunswick Dental Society, said the Society is anxious to maintain the program intact.

"Approximately 6000 kids will be affected by these cuts. The government didn't just cut out an age group from the program, they cut the whole thing," said Dr. Thompson.

The program has been in existence in New Brunswick since 1967. It covered, for children to age 18, preventative, restorative, and diagnostic dentistry, some fillings (including white anterior fillings) and root canal work (on an individual basis.)

"As well, anyone over 18 was entitled to emergency services under the program," said Dr. Thompson.

At a meeting May 25, 1983, between Society executives and provincial ministers, a brief was presented by Dr. Robert Turcotte, Society President, detailing the Society's viewpoint.

Following that meeting, Dr. Thompson said "Our brief and our viewpoint was very well received. I am optimistic about the reinstatement of the program."

The brief will be studied by the provincial budget committee and results should be known in the near future.

Dr. Irwin Margolese, a prominent Montreal dentist and CDA governor, was recently elected President of the Mount Royal Dental Society-Alpha Omega Dental Fraternity.

Other officers of the combined Montreal dental societies recently elected include: Dr. Arthur Greenspoon, Vice-President, Dr. Herb Bor-suk, Corresponding Secretary, Dr.



Dr. Irwin Margolese

Marvin Steinberg, Recording Secretary, Dr. William Steinman, Treasurer and Dr. Sam Israelovitch, Editor. The new officers will serve for the 1983-84 term.

Dr. David Kozloff is the immediate past President of the societies.

A "Roster of Dentists in Ontario for Patients with Special Requirements" has recently been received by the Ontario Association of Homes for the Aged.

The roster was compiled in 1980 by the Ontario Dental Association, in co-operation with the Ontario Ministry of Community and Social Services. It identifies, by geographic location, dentists willing to call at an institution to treat elderly patients or with an interest in geriatric residents. It also lists the languages spoken in the dentist's office.

Information for any particular town or city in Ontario is available from the Ontario Association of Homes for the Aged, 250 Consumers Rd., Willowdale Ont. M2J 4V6.

The Canadian Standards Association has recently announced that several new standards are now available from their offices at 178 Rexdale Blvd., Rexdale (Toronto), Ont., M9W 1R3.

Those of special interest to dentists are the following: Z317.11, Area Measurement in Health Care Facilities (\$24.95); Z323.2.1 Prosthetics and Orthotics, Terminology, Definitions and Identification (\$9.95); Z323.3.1 Electrical Aids for Physically Disabled Persons (\$9.95); Z349.6 Alginate Dental Impression Material (\$12.00); Z349.16 Alloys for Dental Amalgam (\$10.00), and Z441 Terminology and Definitions used in CSA Health Care Technology Standards (\$9.95).

An order form is available from the above address.

The Canadian Hospital Association formally moved to its new headquarters, a heritage building in the Byward market area of Ottawa, on April 12. The CHA occupies the top two floors of the five-storey building, and part of the ground floor and basement.

Chairman of the CHA Board, Mr. J. David Innes, QC, presided at the formal opening ceremonies, and greetings were extended by Mme Monique Bégin, Minister of National Health and Welfare and Ottawa's Mayor, Marion Dewar.

CHA President Mr. Jean-Claude Martin, greeted guests and the staff of the Association conducted guided tours of the new facilities at 17 York Street.

The Canadian College of Health Service Executives, the Canadian Institute of Child Health and the Nursing Unit Administration Program have also relocated, in the same building.

The Ontario Society of Orthodontists recently elected new officers to the Executive for 1983-84.

The new Society President is Dr. Malcolm Yasny of Toronto. Vice-President is Dr. Brian Hurd of Burlington Ontario, and Secretary-Treasurer is Dr. Doug Beaton of London Ontario.

The past President of the Society is Dr. Howard Tile of Don Mills, Ontario.

Effective July 1, 1983, the University of Saskatchewan, College of Dentistry, had authorization to complete its reorganization.

The number of departments in the College has been reduced from six to four. Areas of departmental responsibility have been redefined so that personnel with similar goals, interests and expertise may work together cohesively.

Dr. E.R. Ambrose, Dean of the College, said the change will improve College administration, since Dentistry is now recognized formally as a departmentalized College.

Three small departments: Diagnosis and Oral Radiology, Oral Surgery and Anaesthesia, and Periodontics, have been amalgamated into a larger department called Diagnostic and Surgical Services. This large department will incorporate into its structure the six full-time faculty members who served in the smaller departments.

The other three departments in the College are Community and Pediatric Dentistry, Restorative and Prosthetic Dentistry and Oral Biology.

Under the adolescent dental plan, the number of Saskatchewan teens receiving care from dental practitioners in the province has more than doubled since 1982.

Dr. George Peacock, Secretary--Treasurer of the College of Dental

Surgeons of Saskatchewan, told the Journal that under the plan, more than 20,000 adolescents are presently being treated by provincial dentists.

This figure compares with 9,000 adolescents being treated at this time last year.

Dr. Peacock said that the Saskatchewan Health Minister, in a discussion of the provincial budget, recently announced that it was estimated that by September 1, 1983, 72.8 per cent of the 14 to 16 year olds in Saskatchewan will be treated by the private sector. The remainder, according to the Health minister, will be treated by Saskatchewan Dental Plan staff.

The Northern Alberta Institute of Technology (NAIT) is now offering a program for dental assistants who have experience but no diploma.

The Independent Study Program allows dental assistants who have a minimum of six months experience in a dental office, but have never graduated from a dental assisting course, to get a dental assisting diploma while still working.

The graduating document in Dental Assisting by Independent Study from NAIT allows the assistant to then apply to either the Canadian Dental Assistants' Association or their provincial body for certification.

Two U.S. researchers have found that chewing aspirin can lead to tooth erosion.

Dr. Robert Sullivan and Dr. William Kramer of the University of Nebraska dental school also believe that the acid oral environment created by the aspirin may also retard the growth of decay-causing plaque. Further research is being conducted into this possibility.

Studying children suffering from rheumatoid arthritis, (treated with large daily doses of aspirin), the researchers found that the prolonged

use of chewable children's aspirin led to a wearing away of the tooth enamel and exposure of the yellow dentin.

Of 42 patients studied, some of which had been taking doses of chewable children's aspirin as often as 24 times a day, 25 patients showed mild to severe tooth erosion.

The remaining 17 of the 42 patients had healthy teeth. Of this group, 15 children swallowed their aspirin without chewing and two had pit and fissure sealants applied to their teeth by their dentists.

It is believed that erosion was caused by the acidic nature of particles of aspirin which lodged in the occlusal surfaces of the teeth.

To help combat tooth erosion in patients being treated with a prolonged regimen of aspirin, Dr. Kramer said that swallowing the aspirin was preferable. As an alternative measure, children could have the occlusal surfaces of their teeth treated with pit and fissure sealants.

Dr. Kramer stressed that chewing aspirin over a short period of time would probably not affect the teeth, but that teeth would be affected with the prolonged daily use.

Margaret Heckler, Secretary of the U.S. Department of Health and Human Services (HHS) has ordered a speedup in preparation of draft federal guidelines for training and credentials of auxiliaries who expose radiographs. The guidelines were requested by the 1981 Consumer-Patient Health and Safety Act and were originally scheduled for publication in August of 1982.

Following approval by the HHS secretary, and a review by the office of Management and Budget, the draft of the new guidelines will be published in the *Federal Register* and public comment will be invited. HHS officials hoped that the publication would happen by the end of June.

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1. Bernstein, J. *Death and disability agreements*. Oral Health, v. 73, no. 1, January 1983, pp. 35-37.
2. Bernstein, J. *Management companies: an update*. Oral Health, v. 70, no. 1, January 1980, pp. 38-42.
3. Bernstein, J. *The purchase and sale of a dental practice*. Oral Health, v. 69, no. 10, October 1979, pp. 59-63.
4. Caplan, C.M. *Practice management guidelines for the new dentist*. Dental Management, v. 23, no. 2, February 1983, pp. 61-62, 64, 66.
5. Caplan, C.M. *Raising employees salaries: a dentist's dilemma*. CAL, v. 46, no. 8, February 1983, pp. 10-12.
6. Crowder, W.E. and Schulman, I.M. *Financial planning: a blueprint for your future*. Journal of the California Dental Association, v. 10, no. 11, November 1982, pp. 49-52.
7. Cyr, P. and others. *Will a divorce wreck your dental practice?* Dental Management, v. 22, no. 6, June 1982, pp. 42-45, 47, 49.
8. Drew, D.W. *Management companies: to be or not to be?* Ontario Dentist, v. 59, no. 3, March 1982, pp. 34-36.
9. Hardy, C.C. *How to invest and profit in real estate. Part 2*. Dental Management, v. 22, no. 8, August 1982, pp. 42-44, 46.
10. Korneluk, G.N. *Dentists as partners: enjoying the benefits of togetherness*. General Dentistry, v. 30, no. 1, January-February 1982, pp. 12-13.
11. Mallin, R.J. *The financially healthy dentist*. Dental Clinics of North America, v. 22, no. 2, April 1978, pp. 263-268.
12. O'Donnell, J. and Poynton, J. *Everyone knows dentists are rich, so how come I feel so poor?* CDS Review, v. 73, no. 5, May 1980, pp. 18-21.
13. Pitkin, J.D. and Bassett, D.G. *Tax shelters — a vanishing breed*. Ontario Dentist, v. 57, no. 8, August 1980, pp. 25-26.
14. Schulman, M.L. *Orthodontic economic index-1982*. Journal of Clinical Orthodontics, v. 16, no. 7, July 1982, pp. 477-780.
15. Swerdlow, R.A. and others. *Credit cards: a way to reduce your accounts receivable problem*. Dental Management, v. 23, no. 1, January 1983, pp. 24-26, 81.
16. Tselikis, P. *Where to get investment advice. Part 2*. Dental Management, v. 22, no. 8, August 1982, pp. 18-21, 23, 25.

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The following current acquisitions are available on loan from the Resource Centre/Library.

TITRES EN BIBLIOTHÈQUE

Les titres indiqués ci-dessous sont maintenant disponibles à la bibliothèque/centre de documentation de l'ADC.

1. Bosmijan, C. Perry. *Personalized Guide to Stress Evaluation*. Toronto: Mosby, 1982, 101 p., 1 copy.
2. Canada. Health and Welfare. *The Effects of Customs Tariffs on the cost of Providing Dental Care in Canada*. Ottawa: Supply and Services, 1983. 123 p. 2 copies in English; 2 copies in French.
3. Canada. Health and Welfare. *National Health Research and Development Program Projects Guide 1983-1984*. Ottawa: Health and Welfare, 1983. 27 p. 1 copy. Bilingual.
4. Canada. Health and Welfare. *Periodic Health Examination: Report of a Task Force to The Conference of Deputy Ministers of Health*. Ottawa: Supply and Services, 1980. 194p. 1 copy.
5. Domer, Larry R. *Personalized Guide to Establishing Associations*. Toronto: Mosby, 1983. 152p. 1 copy.
6. Felmeister, Charles J. *Personalized Guide to Financial Planning*. Toronto: Mosby, 1982. 122p. 1 copy.
7. Haver, J.F. *Personalized Guide to Marketing Strategy*. Toronto: Mosby, 1983. 120p. 1 copy.

8. La Fontaine, Benoit. *Examen de Certains Aspects Scientifiques de la Fluoridation*. Québec: Ministère des Affaires Sociales, 1983. 55p. 1 copy.

9. Morris, Robert B. *Principles of Dental Treatment Planning*. Philadelphia: Lea & Febiger, 1983. 240p. 1 copy.

10. Snyder, Thomas L. *Personalized Guide to Practice Evaluation*. Toronto: Mosby, 1983. 208p. 1 copy.

New Journal Subscriptions Nouveaux abonnements

Acta Odontologica Scandinavica. Oslo, Norway.

Journal of Oral Rehabilitation. Blackwell Scientific Publications, Oxford, England.

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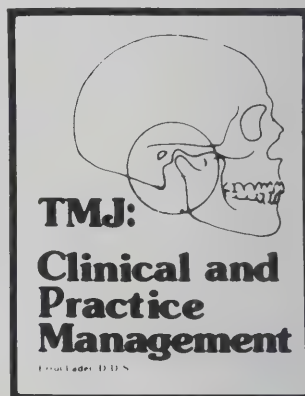
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Principles and Practice of Operative Dentistry

Charbeneau/Cartwright/Comstock/Kahler

/Snyder/Dennison/Margeson

*Lea and Febiger
Philadelphia, PA
1981, 474 pages*

This contemporary textbook on Operative Dentistry was written primarily with the undergraduate dental student in mind. "Occlusion and Restorative Dentistry", "Periodontal Aspects of Operative and Restorative Dentistry", and "Preventive Measures in Restorative Practice" are but three chapters which make this textbook by Charbeneau et al an Operative text with a difference.

Since Operative Dentistry is one of the subjects which is taught early to dental students and encompasses psychomotor as well as cognitive skills, it is essential that basic concepts are understood and their inter-relationships are recognized. Any restorative procedures, be they single surface restorations or extensive rehabilitations can only succeed if principles of caries control, tooth contact relationship and supporting tissue physiology are applied.

The chapter on occlusion explains centric occlusion and centric relation explicitly. A few paragraphs are also devoted to the inter-occlusal space as related to vertical dimension. Normal as well as ideal occlusion is discussed and on completion of this chapter the reader should be aware of the implications of the gnathostomatologic system in regard to dental restorations. Since most dental schools initiate dental students in their first year with a course in occlusion or morphology, this

section relating occlusion to Operative Dentistry is a welcome addition. Although the discussions are basic and do not pretend to expand into sophisticated philosophies or arguments the student should gain an appreciation of accurate jaw relation records and casts for restorative procedures.

The chapter relating Operative Dentistry to periodontal considerations explains the effects of temporary restorations, electrosurgery, contour, contact pontic form, malposed teeth and splinting on the supporting tissues. Although each topic is not extensive, it should provide students with an overview. The philosophy of the gingival sulcus is emphasized.

Under the section on preventive measures, plaque control, dental hygiene devices, pit and fissure sealants and diet are discussed. A section titled "Correction of Occlusion in Prevention of Periodontal Disease", could probably have been included under the chapter on Occlusion.

The chapters on restorative techniques have something for everyone. Besides amalgam, composite and cast gold restorations there are discussions of direct gold as well as post-cores. One area that could possibly be considered in an expanded future edition would be the section which explains the Principles of Cavity Preparation. It is this reviewer's opinion that students should have a complete understanding of these

principles in introductory courses of operative dentistry.

The text is well illustrated with black and white photographs as well as with quality line drawing. Chapters are organized in a logical progression of topics from basic concepts to complex procedures. A handy index provides easy cross-referencing to find what the various authors have to say on any one topic.

The contents of the appendix contains a pleasant surprise in presenting tabulated criteria for cavity preparation and restoration acceptability. This section should prove valuable for instructors consistency when evaluating student projects as well as for student self-evaluation.

The authors indicate that this text would be a good review for a practitioner. My opinion is that this textbook would lack depth for the average practitioner, especially practitioners who have remained current through continuing education.

All things considered this is one of the best texts available for instructing dental students in operative dentistry and should be a text which will stand the test of time.

This book was reviewed by Dr. Carl Osadetz, Faculty of Dentistry, The University of Alberta.

Removable Partial Prosthodontics (2nd Ed.)

Ernest L. Miller and Joseph E. Grasso

*Williams and Wilkins
Baltimore Maryland
402 pages*

This is the second edition of a text first written by Dr. Miller in 1972. The first edition has had several modifications which consist of: revisions particularly in the chapters on clasp design and dental laboratory relations; and the addition of two chapters to discuss partial overdentures and a clinical case presentation.

The book is organized into 25 chapters starting with the examination of the patient and ending with dental laboratory relations. It has 420 pages with black and white clinical photographs and diagrams to illustrate points in the

text. These are generally adequate although different cameras and illustrators have allowed slight variations in clarity.

The style of the book is to present the author's opinion and techniques that are perceived to be best.

Their philosophy of practice advocates replacement of all but minor silicate and amalgam restorations with gold. Crowns for all abutment teeth are an ideal. Several concepts of clasp design are described with a discussion of their advantages and disadvantages. There is a good chapter reviewing the various systems

of classification of edentulous arches. These basics are well covered but there is little discussion of contemporary ideas such as altered insertion paths, functional impression materials, or the merits of more recently advocated major connector designs.

The authors' aim has been "to present the basic concepts and principles of removable partial denture treatment with emphasis on clinical procedures." This has been accomplished.

This book was reviewed by Dr. A.H. Fenton, Associate Professor of Prosthodontics, University of Toronto.

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	hygiénistes de l'étranger	(120\$ à partir du 1 ^{er} août)
	non membres	220\$ ^b (240\$ à partir du 1 ^{er} août)
assistantes, employées de bureau	membres de l'ACAD	110\$ ^c (120\$ à partir du 1 ^{er} août)
	non membres	165\$ ^c (175\$ à partir du 1 ^{er} août)
techniciens		75\$ ^d
étudiants		gratis ^d
autres		75\$ ^d
conjoint		50\$ ^e
Inscription pour une journée*		
hygiénistes	membres de l'ACHD,	50\$ ^f
	hygiénistes de l'étranger	(Inscription préalable obligatoire)
	non membres	100\$ ^f
assistantes employées de bureau	membres de l'ACAD	50\$ ^g
		(Inscription préalable obligatoire)
	non membres	75\$ ^g

*Les assistantes pourront s'inscrire pour une journée sur les lieux.

Notez les points suivants:

- Comprend l'accès à toutes les séances scientifiques et aux salles d'exposition, les trois déjeuners, le petit-déjeuner du mardi, la soirée d'accueil du dimanche et la réception du lundi. **Ne comprend pas** la soirée de gala du président le mardi.
- Comprend l'accès aux séances de l'ACHD et aux séances libres, l'accès aux salles d'exposition, la croisière dans le port et la soirée d'accueil du dimanche, le déjeuner et la réception du lundi, la visite à l'Aquarium du mardi, et le déjeuner et la causerie du mercredi.
- Comprend l'accès aux séances de l'ACAD et aux séances libres, l'accès aux salles d'exposition, la soirée d'accueil du dimanche, le déjeuner et la réception du lundi, la visite à l'Aquarium du mardi et le petit-déjeuner du mercredi.
- Comprend l'accès aux séances scientifiques et aux salles d'exposition seulement.
- Comprend l'accès à toutes les séances scientifiques libres et aux salles d'exposition; le café de l'après-midi et la soirée d'accueil du dimanche; les conférences, le déjeuner et la soirée du lundi; les excursions du mardi; le déjeuner du mercredi et, pour celles qui se lèvent tôt, des séances de bonne condition physique chaque matin.
- Comprend l'accès aux séances scientifiques et aux salles d'exposition; le déjeuner le lundi; la visite à l'Aquarium le mardi; le déjeuner et la causerie le mercredi.
- Comprend l'accès aux séances scientifiques et aux salles d'exposition seulement.

Bourses d'étude Terry Fox décernées à trois étudiants

L'institut national du cancer du Canada a décerné à trois étudiants en médecine dentaire des bourses d'étude Terry Fox leur permettant de faire un stage de recherche sur le cancer au cours de l'année 1983. Les récipiendaires sont: John P. Chan, de l'Université du Manitoba, Brian Warshafsky, de l'Université de Toronto, et William White, de l'Université de l'Alberta. C'était la première fois que les bourses étaient offertes à des étudiants en médecine dentaire.

Le programme a pour objet de permettre à des étudiants en médecine et en médecine dentaire d'apprendre les principes et la méthodologie de la recherche sur le cancer. Chaque bourse, de 10 000 \$, couvre une année d'études encadrée de deux stages d'été.

M. Chan étudiera en laboratoire, sous la direction de Donna Chow à l'Institut manitobain de biologie cellulaire, les effets de la résistance naturelle à la progression des tumeurs. Le projet de M. Warshafsky porte sur la recherche d'une méthode pour étudier l'ostéosarcome, sous la direction du Dr J.-E. Aubin, du groupe de recherche en physiologie parodontale à l'Université de Toronto. M. White étudiera les effets des régimes d'hygiène buccale sur les effets secondaires buccaux de la chimiothérapie, avec les Drs W.M. McGaw, de la faculté de médecine dentaire (Université de l'Alberta), et A.L.A. Fields, de l'Institut du cancer Cross, d'Edmonton.

Subventions d'Ottawa pour les projets touchant la santé

Santé et Bien-être social Canada a préparé deux programmes distincts pour subventionner les projets en matière de santé au Canada.

Le premier, le Programme de contributions à la promotion de la santé (PCPS), est géré par la Direction de la promotion de la santé (Direction générale des services et de la promotion de la santé, Santé et Bien-être social Canada) et vise à appuyer les projets conçus "pour renseigner les Canadiens et promouvoir chez eux l'adoption de comportements qui contribuent au bon état de la santé et aident à éviter les risques."

Selon Charlotte Billard, agent des programmes nationaux à la Division des services régionaux (Direction de la promotion de la santé), le PCPS n'a pas été conçu pour les projets de recherche mais pour la promotion de la santé.

"Un dentiste qui désire publier un dépliant pour promouvoir la santé dentaire peut faire appel au Programme de contributions à la promotion de la santé pour obtenir des subventions," a déclaré Mme Billard.

Le PCPS appuie quatre genres de projets de promotion de la santé:

1. **le développement des ressources:** pour la production de renseignements sur la santé et de documents éducatifs;
2. **l'éducation et la formation:** pour les programmes d'éducation sanitaire destinés au public et à certains groupes spéciaux et pour les programmes de formation destinés aux professionnels de la santé;
3. **le développement organisationnel:** pour aider les organismes bénévoles et communautaires et les groupes d'entraide à entreprendre des activités pour promouvoir la santé;
4. **des projets pilotes:** pour vérifier l'efficacité de programmes innovateurs dans le domaine de la promo-

tion de la santé.

Les organismes à but non lucratif, professionnels, bénévoles et autres sont admissibles au financement des projets dans le cadre du programme. Les bureaux régionaux de la Direction de la promotion de la santé gèrent le financement des contributions destinées aux projets provinciaux et locaux. L'administration centrale de la Division des services régionaux à Ottawa s'occupe du financement des projets parrainés par les organismes nationaux.

Les requérants éventuels peuvent communiquer avec leur bureau régional ou avec le bureau de l'administration centrale pour obtenir un exemplaire du **Guide du requérant** et d'autres renseignements sur le programme des contributions. En voici les adresses:

- **pour tout le Canada:** Directeur de la Division des services régionaux, Direction de la promotion de la santé, Direction générale des services et de la promotion de la santé, Edifice Jeanne-Mance, Parc Tunney, Ottawa (Ontario) K1A 1B4; (613) 996-4533
- **pour les Maritimes:** Direction de la promotion de la santé, Direction générale des services et de la promotion de la santé, 5409, Rainnie Drive, Halifax (Nouvelle-Ecosse) B3J 1P8; (902) 426-2700
- **pour le Québec:** Direction de la promotion de la santé, Direction générale des services et de la promotion de la santé, 1255, rue Université, 5^e étage, Montréal (Québec) H3B 3V8; (514) 283-4587
- **pour l'Ontario:** Direction de la promotion de la santé, Direction générale des services et de la promotion de la santé, 102, rue Bloor ouest, 4^e étage, Toronto (Ontario) M5S 1M8; (416) 966-6483
- **pour le Manitoba, la Saskatchewan et les Territoires du Nord-**

Ouest: Direction de la promotion de la santé, Direction générale des services et de la promotion de la santé, 213, avenue Notre-Dame, Winnipeg (Manitoba) R3B 1N3; (204) 949 6574

— **pour l'Alberta, la Colombie-Britannique et le Yukon:** Direction de la promotion de la santé, Direction générale des services et de la promotion de la santé, 560, avenue West Broadway, Vancouver (Colombie-Britannique) V5Z 1E9; (604) 666-6061

À ces adresses ou au Centre de documentation de l'ADC, on peut encore obtenir une brochure intitulée: **Subventions à la Santé et au Bien-être social et le Guide du requérant — 1982 du PCPS.**

Le second programme de Santé et Bien-être social Canada est le Programme national de recherche et de développement en matière de santé (PNRDS). Pour obtenir des renseignements à ce sujet, on communiquera avec Greg Smith, directeur administratif des recherches à la Direction des programmes de recherche extra-muros (Direction générale des services et de la promotion de la santé, Santé et Bien-être social Canada, (Ontario) K1A 1B4; (613) 992-5291.

Voici les guides disponibles pour les divers programmes du PNRDS:

1. **Guide des bourses de formation,** Programme national de recherche et de développement en matière de santé, Santé et Bien-être social Canada, Ottawa, 1983; bilingue.

Seuls les candidats qui désirent obtenir leur formation en recherche dans un domaine étroitement relié à la santé publique ou aux services de la santé seront considérés par le PNRDS. Les candidats qui se proposent de poursuivre leur formation en recherche dans les domaines de la médecine clinique, des sciences bio-

Les Actualités

médicales, du génie et des sciences sociales non reliées à la santé doivent s'adresser soit au Conseil des recherches médicales du Canada, soit au Conseil de recherches en sciences naturelles et en génie, soit au Conseil de recherches en sciences humaines.

En acceptant une bourse de formation, le candidat s'engage à faire des recherches au Canada dans les domaines liés aux objectifs du PNRDS une fois qu'il aura complété sa formation.

Il y a deux catégories de bourses de formation en recherche disponibles:

- a) des bourses de formation en recherche M.Sc.
- b) des bourses de formation en recherche Ph.D.

Admissibilité: Les candidats doivent être citoyens canadiens ou immigrants reçus et posséder un baccalauréat (ou un diplôme équivalent), ou être titulaire d'un diplôme professionnel (par exemple, M.D., D.D.S., B.Sc.N., etc.), ou être déjà inscrit à un cours pour lequel ils demandent une bourse. Comme la concurrence est très forte, une bonne performance universitaire constitue un atout précieux. Pour les bourses d'études à court terme, il convient d'en discuter au préalable avec le personnel du PNRDS.

Dates de soumission: Les nouvelles demandes de bourses de formation doivent être soumises au plus tard le 15 février de chaque année. Le financement, s'il est agréé, entre en vigueur à partir du 1^{er} septembre suivant ou à une date ultérieure.

Durée de la bourse: Les bourses de formation en recherche M.Sc. peuvent être accordées pour une période maximale de deux ans et les bourses de formation en recherche Ph.D. peuvent l'être pour une période maximale de quatre ans. La période totale d'aide financière accordée à toute personne ne peut dépasser cinq ans.

Allocation: L'allocation octroyée à tout boursier dépend de sa compétence personnelle et de son expérience.

2. **Guide des bourses de carrière,** Programme national de recherche et de développement en matière de santé, Santé et Bien-être social Canada, Ottawa, 1983; bilingue.

Ce programme a été conçu afin d'encourager et d'appuyer des chercheurs hautement qualifiés pour qu'ils se consacrent à la recherche, au développement et aux activités scientifiques connexes dont Santé et Bien-être social Canada a besoin pour s'acquitter de ses fonctions et responsabilités dans les domaines de la promotion, du maintien et du rétablissement de la santé des Canadiens.

Les sujets de la santé qui suscitent présentement l'intérêt sont les problèmes de santé ayant trait à l'isolement et à la dureté des conditions climatiques (le Nord du Canada), certains groupes de la population (les Indiens, les Inuit, les gens âgés, les défavorisés et les enfants), les dangers dans le milieu de travail et les conséquences économiques de la maladie. On s'intéresse également aux problèmes des handicapés et à leur rééducation.

Le PNRDS appuie également les candidats qui ont l'intention de mener des recherches dans les domaines étroitement liés à la santé publique ou aux services de la santé (voir le premier paragraphe de l'article 1).

Des bourses sont octroyées dans les quatre catégories suivantes:

- a) Bourses post-doctorales
- b) Bourses de chercheur — santé nationale
- c) Bourses de chercheur émérite — santé nationale
- d) Bourses de chercheur invité — santé nationale

Admissibilité:

a) **Bourses post-doctorales:** Le candidat doit être citoyen canadien ou immigrant reçu, avoir terminé ses études universitaires et:

- i- détenir un Ph.D. ou un diplôme équivalent en recherche, ou un diplôme M.D./D.D.S. ainsi qu'une maîtrise récente orientée vers la recherche (au minimum une M.Sc.)

ii- être disposé à acquérir, sous direction, une expérience de recherche en santé dans un milieu différent de celui où il a obtenu son Ph.D. ou ses autres diplômes.

b) **Bourses de chercheur** — santé nationale: En plus de satisfaire aux conditions déjà énumérées pour les bourses post-doctorales, le candidat doit posséder au moins deux ans d'expérience post-doctorale dans un centre de recherche en santé bien établi.

c) **Bourses de chercheur émérite** — santé nationale: En plus de satisfaire à toutes les conditions énumérées ci-dessus, le candidat doit avoir fait preuve d'une compétence exceptionnelle et s'être engagé dans un secteur approprié de la recherche en santé durant une période d'au moins sept ans après avoir terminé sa formation universitaire officielle. Au moins cinq de ces dernières années doivent avoir été consacrées à la recherche indépendante ou collective dans le domaine de la santé.

d) **Bourses de chercheur invité** — santé nationale: Le candidat doit satisfaire aux conditions indiquées pour les bourses de chercheur émérite. S'il habite à l'étranger, il n'a pas besoin d'être citoyen canadien, mais s'il habite au Canada, il doit être citoyen canadien ou immigrant reçu.

Dates de soumission: La date limite pour la réception de toute nouvelle demande et des pièces justificatives est le 1^{er} décembre de chaque année. Le financement, s'il est agréé, entre en vigueur à partir du 1^{er} juillet suivant ou à une date ultérieure.

Durée de la bourse: Les bourses post-doctorales sont attribuées pour une période de deux ans, les bourses de chercheur le sont pour une période de cinq ans et ne sont pas renouvelables, les bourses de chercheur émérite sont attribuées pour une période de cinq ans et sont renouvelables. Les chercheurs invités reçoivent des bourses pour des périodes moins longues. Notons par ailleurs qu'une

personne qui a déjà obtenu une bourse de chercheur peut soumettre une demande pour en obtenir une autre.

Allocation: L'allocation dépend de la compétence et de l'expérience du candidat.

3. Guide des projets, Programme national de recherche et de développement en matière de santé, Santé et Bien-être social Canada, Ottawa, 1983-1984; bilingue.

Il s'agit d'un guide à l'intention des candidats qui désirent soumettre des projets de recherche afin d'obtenir un appui financier en vertu du PNRDS.

L'objectif principal du PNRDS est d'encourager les activités scientifiques sérieuses qui sont conçues pour fournir à Santé et Bien-être social Canada les renseignements dont le ministère a besoin pour s'acquitter de ses fonctions et responsabilités, y compris l'un ou l'autre des objectifs suivants:

- recueillir et analyser des données;
- ajouter aux connaissances actuelles ou vérifier de nouvelles méthodes d'enquête;
- entreprendre et évaluer des projets-pilotes originaux touchant le développement, l'organisation et l'administration des soins de santé;
- mettre au point des prototypes nouveaux en rapport avec les régimes, les produits et les méthodes liés à la santé.

Admissibilité: Tout organisme, établissement, association, personne ou groupe canadien qui est en mesure de mener à bien des activités correspondant au mandat du PNRDS peut présenter une demande.

Dates de soumission: Les nouvelles demandes et les pièces justificatives doivent être soumises pour le 1^{er} décembre de chaque année et le financement, s'il est agréé, entre en vigueur le 1^{er} juillet suivant ou à une date ultérieure.

Les activités que le PNRDS encourage comprennent les études, les recherches, les projets, les projets de mise au point préliminaire, les projets-témoins, des conférences, des symposiums et des élaborations de projets.

CONSEIL D'ADMINISTRATION AVIS D'ASSEMBLÉE

L'Assemblée annuelle du Conseil d'administration de l'Association dentaire canadienne aura lieu les 23 et 24 septembre 1983, à l'hôtel Vancouver, à Vancouver (C.-B.). Elle débutera à 9 heures le 23 septembre.

On vous signale que les assemblées du Conseil d'administration sont ouvertes à tous les membres de l'ADC.

Le Conseil d'administration comprend 24 membres qui représentent tous les membres de l'ADC à travers le Canada. Un administrateur représente 500 membres. Les groupes formés par les Services dentaires des Forces armées canadiennes et par les membres étudiants ont un représentant chacun.

Si vous projetez d'assister au Congrès 1983 de l'ADC qui aura lieu à Vancouver, on vous invite à entendre une partie des délibérations du Conseil d'administration afin d'apprendre comment se prennent les décisions politiques qui, au Canada, touchent la profession dentaire en tant qu'organisme.

Voici la liste des administrateurs de l'ADC et des régions qu'ils représentent:

L'ALBERTA

Dr. E.F. Allison
55 — 1812, 4th St. S.W.
Calgary, Alta. T2S 1W1

Dr. D.L. Thompson
68 Clarendon Road N.W.
Calgary, Alta. T2L 0P3

LA COLOMBIE BRITANNIQUE

Dr. M.J.R. Leitch
22 — 1270 Ellis Street
Kelowna, B.C. V1Y 2B5

Dr. R.J. Markey
6180 Blundell Rd., Ste. 210
Richmond, B.C. V7C 4W7

Dr. T.E. Ramage
1506 — 805 W. Broadway
Vancouver, B.C. V5Z 1K1

Dr. John G. Silver
Faculty of Dentistry
UBC

2199 Wesbrook Mall
Vancouver V6T 1Z9

MANITOBA

Dr. P.R. Crawford
1201 — 233 Kennedy Street
Winnipeg, Man. R3C 3J5

LE NOUVEAU-BRUNSWICK

Dr. R.A. Turcotte
910 McCavour Drive
St. John, N.B. E2M 4M3

LA TERRE NEUVE

Dr. Gordon Anthony
44 Torbay Road
St. John's, Nfld. A1A 2G4

LA NOUVELLE ÉCOSSE

Dr. J. Christie
1595 Bedford Hwy., Ste. 210
Bedford, N.S. B4A 1E7

L'ONTARIO

Dr. B.W. Holmes
Box 79
34 Matheson St. S.
Kenora, Ont. P9N 1T6

Dr. G.E. Pitkin

2555 Victoria Park Ave.
Scarborough, Ont. M1T 1A2

Dr. K.L. Roach

351 Pembroke St. W.
Pembroke, Ont. K8A 5N5

Dr. R.R. Schiewe

536 River St.
Thunder Bay, Ont. P7A 3S2

Dr. E.G. Sonley

Faculty of Dentistry
University of Toronto
124 Edward St.
Toronto, Ont. M5G 1G6

ÎLE-DU-PRINCE ÉDOUARD

Dr. J. Robertson
216 Linden Ave.
Summerside, P.E.I. C1N 4N4

QUÉBEC

Dr. J. Laporte

814 avenue Holland
Quebec, Que. G1S 3S2

Dr. I. Margolese

6000 Cote des Neiges
Suite 280
Montreal, Que. H3S 1Z8

SASKATCHEWAN

Dr. J.W. Niedermayer

710 — 1805 Rose St.
Regina, Sask. S4P 1Z8

RÉPRÉSENTANT DES ÉTUDIANTS

Mr. D. McLeod

4 - 844 Saskatchewan Cres. E.
Saskatoon, Sask. S7N 0L4

SERVICES DENTAIRE DES FORCES CANADIENNES

Brig.-Gen. J.N. Wright

Director General, Dental Services
National Defence Headquarters
101 Colonel By Drive
Ottawa, Ont. K1A 0K2

1 Souscrivez les garanties importantes

De nombreux assureurs offrent avec leurs contrats des options qui élargissent les garanties, mais que vous devez payer en plus. Par exemple, une assurance invalidité pourra comporter en option la garantie décès accidentel, ou encore un supplément d'indemnité en cas d'hospitalisation. Ce genre de combinaison de garanties revient généralement plus cher que les mêmes garanties souscrites séparément.

2 Attention aux franchises

Si vous optez pour une franchise peu élevée, vous êtes un peu plus couvert mais à un prix nettement plus élevé. En assurance du contenu par exemple, vous pouvez économiser de 10 à 15 % par an en prenant une franchise de \$ 500 au lieu d'une franchise de \$ 250. Avez-vous encore une franchise de \$ 100 en collision pour votre voiture? Vous paierez nettement moins avec une franchise de \$ 250.

3 Renseignez-vous

Vous verrez que pour un même contrat, il peut y avoir de grosses différences de prime d'une compagnie à l'autre. Pour une assurance vie temporaire de 5 ans, renouvelable jusqu'à 65 ans et avec un capital assuré de \$ 250 000, la compagnie A exigerait une prime annuelle de \$ 1 395 pour un dentiste de 45 ans, tandis que la compagnie B demanderait \$ 1 200 et la compagnie C seulement \$ 890. (La prime du régime d'assurance des dentistes du Canada n'est que de \$ 839.) Comment être certain que les garanties sont comparables? Le régime de votre profession se fera un plaisir de vous aider. Commencez par nous appeler.

4 Un peu de prévention

Quelques précautions élémentaires peuvent vous aider à éviter que de graves sinistres n'atteignent votre cabinet, et il n'y a pas de meilleure manière de prévenir les augmentations de prime. Conservez uniquement la quantité minimum d'or et d'amalgame sur place. Veillez à avoir de bonnes serrures, portes et fenêtres. Coupez l'arrivée d'eau à votre fauteuil d'opération quand vous partez. Si vous envisagez de prendre de nouveaux locaux, assurez-vous qu'ils possèdent de bonnes installations de sécurité et de prévention des incendies.

5 Et vos vieux contrats?

Vos contrats d'assurance vie souscrits il y a 15 ou 20 ans peuvent avoir perdu une grande partie de leur valeur réelle en raison de l'inflation. Il sera souvent préférable de les résilier et d'affecter la valeur de rachat à des placements ou au remboursement d'un prêt hypothécaire.

Combien payez-vous de primes d'assurance chaque année? Nombreux sont les dentistes qui dépensent de \$ 3 000 à \$ 5 000 et même plus. Le régime de votre association a le plaisir de vous présenter ces quelques suggestions, qui vous permettront peut-être de réaliser des économies.

10 bons conseils pour réduire le coût de vos assurances

6 Pourquoi payer d'avance?

Les compagnies qui n'augmentent pas leur prime d'assurance vie ou d'assurance invalidité au fur et à mesure que vous vieillissez vous font en réalité payer plus que vous ne devriez aujourd'hui pour que vous ayez moins à payer demain. L'assureur dispose ainsi de sommes que vous pourriez vous-même utiliser pour prendre de l'expansion, payer votre prêt hypothécaire ou faire des placements. Le régime d'assurance des dentistes du Canada n'offre pas ce genre de modalité parce qu'il estime qu'il n'est pas avantageux pour vous de payer d'avance.

7 Traitez avec ceux qui connaissent la profession

Les besoins d'assurance des dentistes sont différents de ceux des membres d'autres professions. Vous avez besoin de conseillers qui ont une connaissance pratique de vos problèmes et de vos risques. Les assurances que vous propose votre association ont été mises au point par des dentistes en activité, en étroite collaboration avec des spécialistes des assurances, pour que vous ne risquiez pas de vous retrouver avec des garanties conçues pour d'autres.

8 L'assurance et l'épargne sont deux choses différentes

Certaines assurances vie combinent une garantie en cas de décès et un élément épargne pour l'avenir. Elles sont habituellement chères pour des assurances, et peu rentables comme instrument d'épargne. Elles ont souvent pour effet de bloquer vos économies, ce qui vous enlève toute possibilité de transfert pour profiter des meilleurs rendements. Il vaut mieux, du point de vue efficacité et rentabilité, souscrire une assurance vie temporaire pour protéger les personnes à votre charge et mettre sur pied un programme d'épargne et de placement distinct.

9 Passez-vous en revue tous les ans

Vos besoins d'assurance changent d'année en année avec votre âge, votre situation financière, votre situation de famille, l'évolution de votre cabinet et celle de votre patrimoine. L'industrie des assurances elle aussi change, à mesure que de nouveaux produits ou de nouvelles modalités (les tarifs non-fumeurs par exemple) font leur apparition sur le marché. Faites chaque année une revue approfondie de vos garanties et de vos besoins. Vous trouverez peut-être la possibilité de réduire ou de supprimer certaines garanties.

10 Voyez d'abord les assurances de votre association

Les assurances qui vous sont proposées par votre association sont habituellement moins chères que celles que vous pouvez vous-même vous procurer auprès des assureurs. Quand vous avez besoin d'assurance, vous gagnez à voir d'abord le régime d'assurance des dentistes du Canada. Même si vous décidez de souscrire votre assurance ailleurs, vous aurez un bon outil de comparaison.



Le régime d'assurance des dentistes du Canada

Pour un service personnalisé ou pour tout problème d'assurance, contacter le Service de renseignements du CDSPI, à n'importe quelle heure, sans frais :

1.800.268.54.18 Provinces de l'Ouest, provinces atlantiques et région de l'Ontario avec l'indicatif régional 807

1.800.268.34.11 Québec et Ontario, **sauf** pour la région avec l'indicatif régional 807
497.71.17 Toronto et environs

Données touchant l'assurance dentaire — CDSPI

Les Régimes des rentes et d'assurance subventionnés par l'ADC (The Canadian Dental Service Plans Inc. — CDSPI) viennent d'établir les statistiques touchant la participation au Régime d'assurance des dentistes du Canada.

Prises à l'échelle nationale, ces statistiques indiquent, pour chaque catégorie, la garantie moyenne dont bénéficient les dentistes canadiens.

Ces statistiques s'établissent comme suit:

Pour obtenir d'autres renseignements ou une nouvelle brochure indiquant les garanties que l'on recommande aux dentistes, veuillez communiquer avec les CDSPI (2 Lansing Square, Suite 600, Willowdale, Ontario, M2J 4Z3).

Catégorie	au 31 déc. 1981	au 31 déc. 1982
Vie	122,000 \$	140,000 \$
Vie des personnes à charge (conjoint)	37,000 \$	40,000 \$
Décès et mutilations accidentels	71,000 \$	71,000 \$
Invalidité prolongée	1,688 \$/par mois	1,942 \$/par mois
Frais généraux	2,046 \$/par mois	2,038 \$/par mois
Contenu	63,000 \$	74,000 \$
Arrêt de travail	40,000 \$	46,000 \$

ERRATUM

Contrairement à ce que nous disions dans notre numéro d'avril, l'Île-du-Prince-Édouard n'est pas la seule province canadienne à interdire la fabrication des prothèses. Cette interdiction frappe aussi Terre-Neuve, nous a appris l'Association dentaire de cette province.

La rédaction.

Page couverture

Notre page couverture veut illustrer le thème scientifique choisi pour ce mois-ci, la radiologie.

La photo représente le Département dentaire faisant partie des Programmes para-médicaux de l'École des sciences de la santé du Collège Algonquin (Arts appliqués et technologie) situé à Nepean, près d'Ottawa (Ontario).

À l'aide d'un mannequin, une étudiante s'initie à la radiographie buccale. Il s'agit de Ghislaine Roberge, d'Ottawa. Celle-ci a obtenu son diplôme d'assistante dentaire à la collation de 1982.

Le Journal de l'ADC tient à remercier pour leur gentillesse et leur collaboration la doyenne du Département dentaire du Collège Algonquin, Mme Adrienne MacLaughlin, et la présidente suppléante des Programmes para-médicaux, Kathy Thom.

Régime d'épargne-retraite de l'ADC

Les valeurs respectives du Régime d'épargne-retraite de l'Association Dentaire Canadienne étaient les suivantes au 31 mai 1983.

<i>Fonds d'actions ordinaires</i>	\$72.9715
<i>Fonds à revenu fixe</i>	\$36.0797
<i>Fonds garanti</i>	\$26.1882
<i>Fonds de placement</i>	\$14.3765

L'avoir total (valeur marchande) du régime s'élevait à \$36,762,684.

Au 31 mai 1983, les chiffres du mois précédent étaient les suivants:

<i>Fonds d'actions ordinaires</i>	\$70.4839
<i>Fonds à revenu fixe</i>	\$36.0794

<i>Fonds garanti</i>	\$25.9868
<i>équilibré</i>	\$14.1712

L'avoir total (valeur marchande) du régime s'élevait à \$36,572,766.

Pour de plus amples renseignements, veuillez écrire à l'adresse suivante: Canadian Dental Service Plans Inc., Ste. 600, 2 Lansing Square, Willowdale, Ontario M2J 4Z3, ou appeler le service de renseignements du CDSPI en composant 1-800-268-5418 (appel sans frais pour l'Ouest canadien, les Maritimes et l'Ontario où le code est 807 seulement), 1-800-268-3411. (appel sans frais pour le Québec et l'Ontario sauf où le code est 807), et 497 7117 (Région métropolitaine de Toronto).

CONGRÈS NATIONAL **de** **L'Association dentaire canadienne** **et**

L'Association canadienne
des hygiénistes dentaires

L'Association canadienne
des assistantes dentaires

du 25 au 28 septembre

VANCOUVER

Le Congrès national 1983 aura pour cadre les beautés de Vancouver et comprendra un programme qui promet d'intéresser tous les membres de la profession. Ainsi, il y aura

- un exposé du Dr Ray Contino sur les prothèses fixes
- une conférence de Covert Bailey intitulée: "Obèse ou à l'aise"
- un symposium sur les maladies parodontaires

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présenté par le Collège royal des dentistes du Canada.

Patronné par l'Association dentaire canadienne conjointement avec l'Association canadienne des hygiénistes dentaires et l'Association canadienne des assistantes dentaires, le congrès de cette année

sera une occasion formidable pour les membres de la profession de se renseigner et d'acquérir des connaissances utiles.



Pour d'autres renseignements, veuillez communiquer avec:

L'Association dentaire canadienne

1815, promenade Alta Vista
Ottawa (Ontario) K1G 3Y6
ou téléphonez: (613) 523-1770

CDA Convention · VANCOUVER · Congrès de l'ADC

25-28 sept. 1983



Programme du Symposium du Collège royal des dentistes du Canada Vancouver — 26 septembre

Le Symposium du Collège royal des dentistes du Canada aura lieu le lundi 26 septembre, à l'hôtel Vancouver, et portera sur les maladies parodontaires.

Après une présentation du Dr James H.P. Main, président du CDRC, se tiendra la première séance intitulée: *Physiologie et immunologie* et présidée par le Dr D.L. Anderson.

De 9 heures à 9h45 environ, le Dr D.M. Brunette, de l'Université de la Colombie-Britannique prononcera un exposé ayant pour titre: *Croissance et comportement de la cellule du parodonte*. De 9h45 à 10h30, le Dr B.C. McBride, de la même université, fera une *Révision de la microbiologie des maladies parodontaires*.

Après une pause de 30 minutes, débutera la deuxième séance, *Immunologie et pathologie*, présidée par le Dr Main. De 11 heures à 11h45, le Dr D. Deporter, de l'Université de Toronto, fera état des *Théories actuelles touchant l'immunopathologie des maladies parodontaires*.

La deuxième séance se poursuivra à 14 heures, soit après une période de discussion et le déjeuner. Le sujet en sera: *L'Éducation, la prévention et le traitement*. Elle sera présidée par le Dr A.R. Volpe.

De 14 heures à 14h30, *Le Développement de l'enseignement parodontaire et son influence sur la thérapie*

formera le thème d'une séance animée par le Dr A.L. Ogilvie, de l'Université de la Colombie-Britannique.

De 14h30 à 15h30, il sera question des *Possibilités et des limites de la thérapie parodontaire non chirurgi-*

Programme scientifique — modifications

Il arrive parfois que les projets les mieux élaborés doivent être modifiés et c'est le cas pour le programme scientifique du Congrès de l'ADC qui aura lieu du 25 au 28 septembre à Vancouver.

À cause de circonstances imprévues, on a dû réviser quelques points du programme annoncé dans le dernier numéro.

Le lundi 26 septembre, les débats porteront, le matin, sur la dentisterie légale et le contrôle de l'infection (plutôt que sur la chirurgie buccale et les prothèses amovibles).

L'après-midi, ils porteront sur l'endodontie et la dentisterie opératoire (et non sur le contrôle de l'infection).

Trois autres débats auront lieu le mercredi matin (28 septembre) sur les prothèses fixes, sur la chirurgie buccale et sur les prothèses amovibles (et non sur la dentisterie légale et l'endodontie).

cale. Cette séance sera présidée par le Dr J. Egelberg, de l'Université Loma Linda de la Californie.

Le Dr G.S. Beagrie, doyen de la Faculté dentaire de l'Université de la Colombie-Britannique, animera la dernière séance qui portera sur les *Traitements*.

De 15h30 à 16 heures, le Dr N. Basaraba, de la même université, parlera des *Premiers Soins pour le traitement des maladies parodontaires: arrêt et progression*.

Durant la deuxième partie de cette séance, de 16 heures à 16h30, le Dr B.J. Lahiffe, également de l'Université de la Colombie-Britannique, discutera le *Rôle de la chirurgie dans le traitement des maladies parodontaires*.

Cette séance se terminera par une période de discussion de 16h30 à 17 heures.

Autres activités du CDRC

Le vendredi 23 septembre, à l'hôtel Vancouver, de 9 heures à 17 heures, le CDRC tiendra son *Assemblée annuelle*.

Le samedi 24 septembre, à Vancouver, toujours, il y aura la *distribution des diplômes du CDRC* au Département de musique de l'Université de la Colombie-Britannique.

Le même jour, à 18h30, aura lieu le *Dîner annuel* au Club de golf Capilano, à Vancouver ouest.

Le Canada aura suffisamment de fluorure cette année

Les approvisionnements en acide hydrofluosilicique (HFS), produit dérivé d'un fertilisant et servant à fluorer l'eau, seront suffisants pour répondre aux besoins cette année.

L'année dernière, une crise de l'industrie des fertilisants avait fait baisser les réserves d'acide HFS à un point tel que des villes comme Edmonton et Toronto se sont retrouvées sans fluorure ou presque à certains moments. Un bref sondage effectué par le Journal indique qu'il y a maintenant assez de fluorure pour répondre adéquatement à la demande.

Les principales agglomérations qui utilisent le HFS pour fluorer l'eau sont celles de Winnipeg, d'Edmonton, du Toronto métropolitain et de Halifax-Sackville.

Selon I.B. Henderson, ingénieur au service d'aqueduc de Winnipeg, la ville a failli manquer de HFS l'année dernière, mais l'arrivée de nouveaux approvisionnements a éloigné le danger.

"Nos réserves ont baissé considérablement dit-il, mais au moment où nous allions en manquer, un nouvel approvisionnement arrivait. Cette année, la situation est meilleure et nous risquons définitivement moins d'en manquer."

À Edmonton, la rareté de fluor n'a duré que six semaines. Le Dr André Lazare, agent de fluoration de l'Alberta, précise que les approvisionnements en HFS vont bon train et il ne prévoit pas de rareté de fluorure cette année.

Dans l'ouest du pays, le fournisseur canadien de HFS, Cominco, approvisionne les villes d'Edmonton, de Lethbridge, de Cranbrook, de Kelowna, de Kamloops, et la ville américaine de Seattle.

Son coordonnateur des ventes, Gerry Hoogmoed, soutient que la production du fertilisant suit un rythme normale et il ne prévoit

aucune rareté de HFS cette année.

La société CIL, de Willowdale (Ontario) est le principal fournisseur de l'est du pays qui comprend l'Ontario et le Québec. Son directeur de la production, Bruno Lenarduzzi, n'y prévoit pas de rareté lui non plus. La compagnie dessert des agglomérations comme celles du Toronto métropolitain et d'Ottawa ainsi que plusieurs villes du Québec.

Depuis la fin de 1982

"La CIL n'a pas de difficulté à approvisionner ses clients de HFS depuis la fin de 1982. Tous nos clients reconnus ont reçu les approvisionnements dont ils avaient besoin et ils n'ont été soumis à aucun contingentement", de dire M. Lenarduzzi.

La seule agglomération des provinces de l'Atlantique à se servir

du HFS pour fluorer l'eau, c'est celle de Halifax-Sackville, en Nouvelle-Écosse. Dave Grantham, ingénieur au service d'hygiène publique de Halifax, a précisé que, lorsque la rareté de HFS s'était fait sentir l'été dernier, la ville avait réduit son taux de fluorure, mais n'avait pas suspendu la fluoration de l'eau.

"Nous ne prévoyons aucune difficulté cette année dans la région de Halifax-Bedford-Sackville," dit-il, "et la fluoration se maintient à un taux normal depuis le début du mois de février 1983."

Les autres provinces de l'Atlantique se servent de fluorure de sodium pour fluorer leur eau. Elle n'ont connu aucune rareté d'approvisionnement l'année dernière et n'en prévoient pas cette année.

Le Dr David K. Peters devient fellow du collège américain

Le Dr David K. Peters, de Saint-Jean (Terre-Neuve), ancien président de l'Association dentaire canadienne et de l'Association dentaire de Terre-Neuve, et président actuel du Fonds canadien d'éducation dentaire, a été nommé fellow du Collège américain des dentistes et recevra son titre le 1^{er} octobre, lors du congrès de l'Association dentaire des États-Unis, qui aura lieu à Anaheim (Californie).

Diplômé de l'Université Dalhousie en 1950, le Dr Peters a pratiqué la médecine dentaire pendant 32 ans.

Il a présidé l'Association dentaire de Terre-Neuve en 1957-1958 et a été registraire du conseil dentaire de cette province de 1969 à 1978. Il a présidé, en 1968, le comité qui avait été chargé alors de réviser la loi provinciale de la médecine dentaire et a servi de consultant, dès le commencement, pour la mise en place du régime d'assurance santé de la province.

Le Dr Peters fait partie du conseil de la santé de Terre-Neuve et agit à titre de consultant auprès de la compagnie Mutual Life. Il est membre de l'Association canadienne de la santé publique et de la Société canadienne de dentisterie médico-légale.

Il a été président de l'Association dentaire canadienne en 1972-1973. Ses nombreuses compétences l'ont amené à préparer, au nom de l'Association canadienne et de son association provinciale, divers mémoires portant, entre autres, sur la législation dentaire la denturologie, l'anesthésiologie et l'utilisation des auxiliaires dentaires.

De 1972 à 1978, il a été chargé par le gouvernement fédéral de représenter la médecine dentaire au Conseil des normes du Canada.

Il est aussi fellow du Collège international des dentistes.

En bref —

La Société des orthodontistes d'Ontario a élu récemment son nouvel exécutif pour l'exercice 1983-1984. Le Dr Malcolm Yasny, de Toronto, a été élu à la présidence et le Dr Brian Hurd, de Burlington, à la vice-présidence, tandis que le Dr Doug Beaton, de London, a été élu secrétaire-trésorier. Le président sortant est le Dr Howard Title, de Don Mills.

Le Collège de dentisterie de l'Université de la Saskatchewan a été autorisé à compléter sa réorganisation, à compter du 1^{er} juillet 1983.

Le nombre des départements y a été réduit de six à quatre et les responsabilités y ont été redéfinies de façon à permettre au personnel ayant des objectifs, des intérêts et des compétences similaires de travailler ensemble avec cohérence.

Le Dr E.R. Ambrose, doyen du collège, a précisé que les changements apportés aideront à améliorer l'administration de la faculté, dont les départements sont maintenant reconnus officiellement.

Le nouveau département des Services diagnostiques et chirurgicaux en regroupe trois autres plus petits: le diagnostic et la radiologie buccale, la chirurgie buccale et l'anesthésie ainsi que la périodontie, de même que les six membres à plein temps du corps professoral qui desservaient les groupes antérieurs.

Les trois autres départements sont la dentisterie communautaire et le pédodontie, la dentisterie restauratrice et prothétique, et la biologie buccale.

En vertu du régime dentaire pour adolescents de la Saskatchewan, le nombre des jeunes gens recevant des soins dentaires dans la province a plus que doublé depuis 1982.

Le secrétaire-trésorier du Collège

des chirurgiens dentistes de la Saskatchewan, le Dr George Peacock, a déclaré que, présentement, plus de 20 000 adolescents sont traités par des dentistes de la province grâce au régime en question.

L'an dernier, le nombre d'adolescents traités atteignait seulement 9 000.

Le ministre de la Santé de la Saskatchewan, a observé le Dr Peacock, a récemment annoncé, au cours d'une discussion sur le budget, qu'on prévoyait que, à compter du 1^{er} septembre 1983, 72,8 pour cent des adolescents âgés de 14 à 16 ans seraient traités par le secteur privé. Les autres, toujours selon le ministre de la Santé, seront soignés par le personnel du régime dentaire de la Saskatchewan.

Le Dr Irwin Margolese, éminent dentiste de Montréal et gouverneur de l'ADC, a été élu récemment président



Le Dr Irwin Margolese

de la Société dentaire de Mont-Royal et de la Fraternité dentaire Alpha-Oméga.

Les autres membres de l'exécutif des deux sociétés maintenant fusionnées sont: le Dr Arthur Greenspoon, vice-président; le Dr Herb Borsuk, secrétaire à la correspondance; le Dr Marvin Steinberg, secrétaire archiviste; le Dr William Steinman, trésorier; le Dr Sam Israelovitch, rédacteur. Ils ont été élus pour l'exercice 1983-1984.

Le Dr David Kozloff est le président sortant des deux sociétés.

L'Institut de technologie du Nord de l'Alberta (ITNA) offre présentement un cours à l'intention des assistantes dentaires qui possèdent de l'expérience mais aucun diplôme.

Intitulé: "Independent Study Program" (Programme d'études indépendantes), ce cours permet aux assistantes dentaires qui ont travaillé au moins six mois avec un dentiste sans avoir de diplôme, d'en obtenir un tout en continuant à travailler.

Un fois munie de diplôme attribué par l'ITNA, une assistante peut adresser une demande à l'Association canadienne des assistantes dentaires ou à son association provinciale pour obtenir un certificat.

Selon deux chercheurs américains, mâcher de l'aspirine peut éroder les dents.

Les Drs Robert Sullivan et William Kramer, de l'École dentaire de l'Université du Nebraska, croient également que l'acide qui se développe dans la bouche sous l'effet de l'aspirine peut retarder la formation de la plaque qui cause des caries.

Des 42 patients examinés dont certains avaient consommé de l'aspirine pour enfants jusqu'à 24 fois par jour, 25 présentaient des dents légèrement ou sérieusement érodées.

Les dents des 17 autres patients étaient saines et, sur ce nombre, 15 avaient avalé les comprimés sans les mâcher alors que les deux autres avaient fait traiter leurs dents avec des produits pour obturer fissures et pertuis.

On croit que l'érosion est causée par l'acidité des particules d'aspirine qui s'attachent aux surfaces occlusales des dents et s'y incrustent.

Pour aider les patients qui consomment de l'aspirine à surmonter ce problème, le Dr Kramer leur conseille d'avaler les comprimés. Une autre solution consiste à traiter les surfaces occlusales des dents avec des produits d'obturation.

ADA President's Conference sets guidelines for examination, diagnosis and management of TM disorders

A Canadian endorsement

The diagnosis and treatment of temporomandibular disorders has been controversial and confusing. This may be due to the fact that the etiology can be multifarious and involve disciplines outside dentistry. Also, many times, patients will respond positively to diverse forms of therapy. The treatment employed may range from a soft diet and moist heat to kinesiology and meniscectomy. Hard scientific evidence for many forms of therapy is lacking. Consequently a reasonable amount of research and study is now being devoted to the topic. Many courses are also being promoted espousing specific methods of treatment, many of which are lacking in scientific foundation. Perhaps due to lack of "busyness" in other areas of dental



Dr. Robert S. Turnbull
Scientific Editor CDA Journal

treatment, practitioners are now becoming more interested in treating patients with temporomandibular disorders.

Thus the president of the American Dental Association convened a conference on the etiology, diagnosis and management of temporomandibular disorders. The report of this conference appeared originally in the January 1983 issue of the Journal of the American Dental Association. Because of the current importance of this topic we are reprinting the report in our Journal.

In my view, one of the most important guidelines for treatment resulting from the conference is the basic principle of using conservative, reversible forms of therapy whenever possible.

GUIDELINES FOR CLINICAL EXAMINATIONS FOR TM DISORDERS

The conference participants indicated that, in addition to obtaining a comprehensive medical and dental history and performing a thorough dental examination of every patient, a brief screening history and examination pertinent to the temporomandibular disorders should be done to enable the practitioner to determine the need for a more detailed evaluation. Should the screening history and examination result in positive findings the participants recommended a second more comprehensive assessment specifically related to the evaluation of temporomandibular disorders.

Screening history for TM disorders

The preliminary or screening history should be part of the routine health history and should include such questions as:

- Do you have difficulty opening your mouth?
- Do you hear noises from the jaw joints?
- Does your jaw get "stuck", "locked", or "go out"?
- Do you have pain in or about the ears or cheeks?
- Do you have pain on chewing or yawning or wide opening?
- Does your bite feel uncomfortable or unusual?
- Have you ever had an injury to your jaw, head, or neck?
- Have you ever had arthritis?
- Have you previously been treated for a temporomandibular disorder? If so, when, what, how, and by whom?

Screening examination

A brief clinical examination for TM disorders should include:

- Inspection for facial symmetry.
- Evaluation of jaw movements.
- Palpation, (masticatory muscle tenderness and joint tenderness, incoordinations, clicking, and crepitus).

Should positive findings emerge from the screening history and examination a more comprehensive evaluation should be done. This should include:

- Health history. The medical and dental history pertinent to the temporomandibular symptoms.
- A detailed examination related to the symptoms
- Radiographic examination for dental and TM pathology*; panoramic and complete full-mouth radiographs; transcranial radiographs as indicated; other radiographs as indicated (tomograms, arthrograms).
- Psychosocial factors related to TM symptoms.
- Musculoskeletal problems.
- Psychophysiologic disorders (ulcer, tension headache, asthma, colitis).
- Medication usage.
- Oral habits.
- Occupational factors.
- Emotional factors.
- Other factors (tumors, developmental and acquired anomalies).

Special Considerations About Evaluation

- The use of radiographs for the purpose of assessing joint spaces has not been shown to be a reliable diagnostic procedure.
- TM arthrography is not recommended as a routine diagnostic procedure to assess internal joint derangements.
- Study casts for the analysis of occlusion should be made when necessary.
- Additional clinical or laboratory tests should be conducted when specifically indicated to rule out or confirm specific diagnoses.

GUIDELINES FOR DIFFERENTIAL DIAGNOSIS

There is a need for an improved classification of TM disorders. Such disorders should be separated into those that occur primarily in the muscles of mastication; those that involve the TMJ; and those that occur in related areas that mimic temporomandibular disorders. The use of broad, nonspecific categories such as "temporomandibular joint dysfunction" should be discouraged. Until a more definitive classification is developed, the following is suggested (This classification is similar to one proposed by Weldon Bell.):

- Masticatory muscle disorders: protective muscle splinting; masticatory muscle spasm (MPD syndrome); masticatory muscle inflammation (myositis).
- Problems involving derangement of the temporomandibular joint: incoordination; anterior disk displacement with reduction (clicking); anterior disk displacement without reduction (mechanical restriction; closed lock).

- Problems that result from extrinsic trauma: traumatic arthritis; dislocation; fracture; internal disc derangement; myositis, myospasm; tendonitis.
- Degenerative joint disease: noninflammatory phase (arthrosis); inflammatory phase (osteoarthritis).
- Inflammatory joint disorders; rheumatoid arthritis; infectious arthritis; metabolic arthritis.
- Chronic mandibular hypomobility: ankylosis (fibrous, osseous); fibrosis of articular capsule; contracture of elevator muscles (myostatic contracture; myofibrotic contracture); internal disc derangement (closed lock).
- Growth disorders of the joint: developmental disorders; acquired disorders; neoplastic disorders.

Special Considerations About Diagnosis

- Although psychologic factors may be involved in some TM disorders there is no scientific evidence to support the routine use of psychologic testing in the diagnosis of temporomandibular disorders. (Psychologic testing refers to the administration of such instruments as the Minnesota Multiphasic Personality Inventory, various anxiety scales, life event scales, by or under the supervision of a psychologist trained in their use.)
- When there is reason to believe that organic pathologic conditions exist, radiographs of the temporomandibular joints should be taken. A transcranial, transpharyngeal, or panoramic radiograph can be used as a screening view, with tomography reserved for those patients in whom the screening radiograph shows a possible abnormality.
- Transcranial radiography for the evaluation of condylar position is not as reliable as tomographic assessment of joint spaces, but in either case there is insufficient evidence that eccentricity of the condyle in the fossa is a diagnostic sign of a temporomandibular disorder.
- Study models may be used routinely. Although the scientific literature has not shown that occlusal problems cause mandibular disorders, clinical data do confirm the two conditions frequently coexist, but the nature of the relationship between them is unclear at this time.
- At this time, temporomandibular joint arthrography should be considered a special diagnostic method with limited indications. It should be reserved for those patients with suspected internal joint derangements in whom nonsurgical therapy of adequate duration has not resolved the symptoms and surgery is contemplated, and in those patients with painful limitation of opening where dislocation of the disc is suspected.
- No scientific studies have provided support for the concept that body muscle testing (applied kinesiology) is a reliable indicator of jaw dysfunction; that it can be

used as a means for establishing proper jaw position or vertical dimension; or that it can provide useful information on the local or systemic health status of the patient.

GUIDELINES FOR TREATMENT

On the basis of the literature reviews presented at this conference, it was concluded that at present there is insufficient data to permit comparison of different forms of therapy to establish a priority for their use. However, the basic principle of using conservative reversible forms of therapy, whenever possible, was advocated. Moreover, it was emphasized that a warm, positive, and reassuring attitude on the part of the dentist is crucial in the treatment of these disorders. In addition, it was stressed that there should be a scientific basis for establishing a treatment modality and testing its efficacy. On the basis of these concepts, the following recommendations were made regarding the various forms of treatment used for patients with temporomandibular disorders. However, it must be kept in mind that the order of the recommendations does not imply a priority sequence.

Pharmacologic agents

The appropriate use of pharmacologic agents in the treatment of muscle and/or joint disturbances on a short-term basis can be a useful mode of therapy. Therapy commonly includes the use of nonaddictive analgesics, anti-inflammatory drugs, anti-anxiety agents, and muscle relaxants. Less frequently used, but sometimes indicated, are the use of antidepressants.

Occlusal Adjustment Therapy

- It should be considered an irreversible treatment.
- It should not be used routinely and especially not during the acute stage of most temporomandibular disorders.

Occlusal Appliances

- Those appliances that are not designed to intentionally and permanently reposition the mandible or the dentition should be considered a reversible form of therapy.
- These appliances are recommended for many dysfunctional conditions involving the muscles of mastication and the TMJ. Sufficient scientific evidence for their efficacy exists.

Mandibular Repositioning Therapy

- Intentional permanent placement of the mandible in a new position by means of prosthodontic treatment, orthodontic treatment, surgery, or by functional occlusal appliances should be considered an irreversible form of treatment.
- Ordinarily, jaw repositioning occlusal appliances should be considered a reversible form of treatment unless followed by occlusal adjustment, prosthetic restorations, or orthodontic or surgical treatment. However, their effects may occasionally be irreversible.
- Sufficient supporting evidence for this treatment approach was not presented at this Conference.

Physical Therapy

- This should be considered reversible treatment.
- Sufficient supporting evidence for the efficacy of this treatment modality was not reviewed at this conference.

Surgery

For certain conditions, such as developmental and acquired abnormalities, ankylosis, or neoplasia, surgery may be indicated as the initial treatment of choice. For functional disorders, such as MPD syndrome, surgery is not indicated. At the present time, there is no evidence to support the use of surgery for the initial treatment of disc displacement. Only after failure of currently acceptable nonsurgical treatments should surgery be considered. However, failure of such treatments alone should not be considered as the only criterion for surgery. Surgical intervention must be based on clearly defined criteria of intracapsular pathologic conditions or anatomic derangement. There is currently little support for meniscectomy except in situations where the disk is so deranged, damaged, or diseased that no other alternative exists.

Osteopathic and Chiropractic Therapies

- Data regarding the reversible or irreversible nature of these treatment modalities were not presented at this conference.
- Supporting evidence for the efficacy of these treatment modalities currently does not exist.

Behavior Therapies

- For some dysfunctional conditions involving the muscles of mastication, this approach is recommended and has reasonable scientific support. Behavioral strategies are also indicated for many chronic nonresponding temporomandibular patients. (The specific behavior therapies include biofeedback and relaxation training.)

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Participants in the Conference, June 1 to 4, 1982, were: William A. Ayer, Weldon E. Bell, Donald Blaschke, Sanford Block, William Booth, James G. Burch, Francis M. Bush, Charles D. Carter, Glenn T. Clark, Kenneth M. Clemens.

Peter E. Dawson, Lon R. Doles, Herbert B. Dolinsky, M. Franklin Dolwick, Donald H. Enlow, Clifford Fox, Sanford C. Frumker, Elliott N. Gale, Aaron Ganz, Lee Getter, George Goodheart, Gar S. Graham, Charles S. Greene, William Greenfield, John M. Gregg, Robert H. Griffiths, Walter Guralnick.

John H. Harakel, John L. Hicks, William B. Irby, Richard W. Janson, Mark P. Jarrett, Justin L. Jones, David A. Keith, Hans Kraus, Daniel M. Laskin, Charles G. Lewis, Michael Lewis.

Robert Majewski, W.D. McCall, Jr., Charles McNeill, Benjamin Moffett, Norman D. Mohl, Daniel Myers, Peter Neff, Jeffrey P. Okeson, George R. Olfson, Ronald E. Olson.

Benjamin Pereira, Harold T. Perry, Calvin Pierce, John D. Rugh, Frank Schmid, Gordon Schrottenboer, Robert Siegel, William Solberg, Delmar Stauffer, Arthur T. Storey, Stuart Super, Charles Widmer, Bernard T. Williams, George Zarb.

The extraoral lateral oblique radiograph: A radiation-efficient replacement for the pantomograph

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SUMMARY

Since its introduction in the 1950's, panoramic radiography has generally replaced the traditional lateral oblique because of its simplicity of method and portrayal of the teeth and jaws in one film. In addition, the panoramic film has been widely used in a screening or health investigation role. However, with current concern over levels of radiation exposure, the professions have almost eliminated the screening concept in favour of the selective prescription of radiographs. Films should be ordered only if the information obtained directly contributes to the diagnosis and treatment of disease, thus showing a favourable risk/benefit ratio. Specific diagnostic indications for the pantomograph are so few and the equipment so expensive that only if screening radiography is practised can the cost be absorbed. In most instances where extraoral films are required, the extensive area covered by the pantomograph is not required for the specific diagnostic problem. The discrete lateral oblique image involves significantly less radiation exposure for the patient. The extraoral lateral oblique projection is recommended as an inexpensive, radiation-efficient alternative to the pantomograph in a general dental practice.

Although intraoral radiography is the mainstay of radiography in dental practice, there are occasions where the lesion to be examined cannot be seen at all or only part of it can be seen on a small intraoral film. This is due either to the size and location of the lesion or difficulty in film placement. A classical example of the latter problem is caused by trismus arising from a pericoronal infection of third molars. In these instances, the dentist traditionally has resorted to the "extraoral" film technique, which involves the use of an intensifying screen/film combina-

SOMMAIRE

Depuis qu'on a introduit l'usage au cours des années 1950, les radiographies panoramiques ont, de façon générale, remplacé les radiographies de profil extra-buccales à cause de leur simplicité. En effet, il suffit d'une seule radiographie pour obtenir une vue complète des dents et des mâchoires. De plus, les radiographies panoramiques ont été universellement utilisées pour des fins d'études sur la santé. Toutefois, maintenant qu'on s'inquiète de l'effet des radiations, les professions ont presque éliminé les tests de dépistage systématiques en faveur des radiographies sélectives prises sur ordonnance. Les radiographies doivent être prescrites seulement si les renseignements obtenus directement contribueront au diagnostic et au traitement de la maladie, justifiant ainsi que les risques sont compensés par les avantages recherchés. Il est si rare que le diagnostic exige un recours précis à la pantoradiographie et l'équipement en est si dispendieux que c'est seulement en prenant systématiquement des radiographies de dépistage qu'on peut en amortir le coût.

Dans la plupart des cas où des radiographies extra-buccales sont exigées, il n'est pas nécessaire d'avoir une radiographie complète comme en fournit la pantoradiographie pour répondre aux prescriptions du diagnostic. Par contre, avec la radiographie de profil, le patient est moins exposé aux radiations. C'est pourquoi, en dentisterie générale, on recommande les radiographies de profil extra-buccales de préférence aux pantoradiographies. Elles sont moins dispendieuses et émettent moins de radiations.

tion in a rigid cassette positioned outside the oral cavity. This type of radiographic examination, while not common in general practice, was essential to the specialties of oral surgery, orthodontics, and paedodontics.

Almost all medical radiographs are made using intensifying screen/film combinations, because direct exposure of films would subject large areas of the body to prohibitive doses of x-radiation. Film emulsions have a relatively low sensitivity to direct exposure by x-ray photons but are very sensitive to light. Early in the development of diagnostic radiology, this property was exploited by placing the film in a lightproof container or cassette which contained one or two intensifying screens. Screens consist of the support layer (cardboard in the early screens but now exclusively plastic) on which a thin layer (about four microns) of an inorganic salt or "phosphor" is coated. The phosphor layer is then protected by a thin coat of plastic. The salts used have the ability to emit light when exposed to the stimulus of ionizing radiation. This is fluorescence which is the instantaneous emission of white light. Until recently the principal phosphor used in medical radiography was calcium tungstate (CaWO_4). When exposed to x-ray energy, the phosphor will emit hundreds of light photons for each x-ray photon received. The light photon emission pattern thus produced will result in a latent image on the film similar to that obtained by x-rays alone. Images are formed on screen film using **only a fraction** of the x-ray energy required in the direct exposure techniques of intraoral radiography.

Although very efficient when compared with direct exposure methods, the traditional calcium tungstate screen is relatively inefficient compared with modern screens employing rare earth phosphors. These have been introduced in the last 10 years.^{1,2} Rare earths form a basic group of chemical elements, which are not really rare but simply difficult to extract from other elements; for this reason they are more expensive. Several of these have been developed for intensifying screens but the principal ones are gadolinium oxysulfide ($\text{Gd}_2\text{O}_3\text{S:Tb}$) and lanthanum oxybromide (LaOBr:Tb). In a pure state, they will not fluoresce efficiently so another rare earth, e.g. terbium, is added in small quantities. A rare earth screen will absorb 60 per cent of the incident x-ray photons compared with 20 per cent for calcium tungstate. In addition, of these absorbed photons, calcium tungstate will convert only five per cent to white light, while the rare earth conversion is 20 per cent.¹ The combination of more efficient absorption and a higher conversion to light results in significantly lower patient exposures.

A very specialized form of extraoral radiography, pantomography or panoramic radiography was introduced to dental practice in the late 1950's.³ This form of body section radiography combined the principles of tomography and scanography to produce a "curved surface tomograph" of the jaw.^{4,5} The original excitement created by the prospect of having all the teeth and supporting structures on one film was soon dampened by the evident lack of image sharpness and the presence of a disconcerting number of artefacts. At first the film found little use in

general practice because of its inability to show the early signs of caries, periodontal disease or periapical change. It did give good images of third molars in the entire context of bones of the jaws. The context or scope, comfort and simplicity of the technique quickly recommended it for the specialty practices of oral surgery, prosthodontics, paedodontics and orthodontics. The severe difficulties encountered in obtaining complete mouth intraoral surveys in the edentulous and the very young were avoided by this technique. And indeed, the scope of the film provided excellent images for tooth counts, developmental disturbances in the dentition, retained roots and other conditions where the image sharpness and resolution of the intraoral film were not required. For oral surgical problems of all kinds the traditional method of using several extraoral projections employing 5 x 7 inch or 8 x 10 inch cassettes was largely replaced by the more convenient panoramic film. These were legitimate and productive applications of the new technology but as a consequence the teaching of traditional extraoral methods was given low priority or even suspended in preference to the simpler method of pantomography.

A regrettable use of the panoramic film in a screening role developed in the 1960s when the philosophy of prevention through screening or health investigations became popular in medicine and dentistry. The aim was disclosure of occult disease in the earliest stage. This approach to patient management was taught in dental schools and subsequently widely practised. All new dental patients were routinely given a complete mouth series of intraoral films (CMS) as a preparation for clinical examination. The new technique of pantomography was ideally suited to the screening role but unfortunately in many cases the panoramic film was routinely used **in addition** to the CMS. Sales increased rapidly and the units were actively promoted by manufacturers for screening and for the financial benefit of the dentist. Subsequent review of the benefits of health investigations in medicine indicated a low rate of return in terms of preventive disclosure of bone lesions.⁶ In the face of increasing concern about the dangers of ionizing radiation, the practice of screening radiography has been largely discontinued in medicine and is now under critical review in dentistry.^{7,8} If there were a safe method and if we had unlimited resources, then the philosophy of screening radiography could be practised. However, the expense and potential hazard to large numbers of healthy people cannot be justified by the low return of disease disclosure. The process has an unfavourable risk/benefit ratio.

In addition to the lack of convincing evidence for use of the pantomograph in a screening role, the sheer cost of the equipment (\$20,000 or more) will sharply reduce its attractiveness for general practice. For the traditional lateral oblique method, a modern cassette with two intensifying screens will cost approximately \$200 or less. The same diagnostic needs for extraoral films exist and can be

met by re-introduction of the traditional method. In fact the new screen technology makes the extraoral plane film significantly more radiation efficient than the pantomograph.

In this article, we propose to review the indications, equipment and technique of the extraoral lateral jaw film as an effective substitute for the panoramic film. The technique is simple and practical for the general practice of dentistry as well as the specialties.

INDICATIONS FOR EXTRAORAL RADIOGRAPHS

A relatively small number of dental/oral conditions will be encountered during examination, which because of size and/or location beyond the tooth-bearing part of the jaws, cannot be projected upon intraoral films. These are primary indications for extraoral projections. Some of the more common examples are: 1) jaw fractures, 2) some third molar impactions, 3) large cysts or tumors—especially in third molar or ramus regions, and 4) large simple bone cyst in the lower canine/bicuspid region. Some of these lesions in the tooth-bearing part of the jaws may require occlusal films as a supplementary projection to the extraoral and intraoral views.

Secondary indications for the use of extraoral films are mostly independent of the lesion. Small lesions within the tooth-bearing area, which are normally shown on intraoral film, may require an extraoral projection because of circumstances peculiar to the patient. These reflect an assortment of physical and psychological disabilities which either preclude or lend great difficulties to intraoral film positioning. Many problems will be directly attributable to age, occurring in either the very young or in the elderly. Whether from fear, age, lack of coordination causing an inability to maintain the film in position, gagging or limited opening, the usual intraoral films may not be easily obtained and must be replaced by extraoral projections. Another example of an important secondary indication arises in the presence of infection or trauma where either pain or trismus may rule out intraoral radiography. In all of these circumstances, the extraoral capability is critical to effective patient management.

Finally, there is a slightly futuristic indication where the selection of the method of radiography is determined by nature of the problem to be evaluated. For example, it may be necessary to know whether the second bicuspid is present after early loss of a deciduous molar. In the absence of any other requirement, except noting the presence or absence of this large object, an extraoral projection would represent a far more efficient use of radiation than a direct exposure intraoral film. The resulting image, if obtained with a fast screen/film combination using very little exposure, does not have the image sharpness or resolution of the intraoral film but for the stated purpose **these are not needed**. The radiation-intensive intraoral film would be reserved for use in the diagnosis of condi-

tions where its superior sharpness and resolution are required.

EQUIPMENT

Cassettes and Screens: Cassettes are available in many sizes but only three are likely to be applicable to dental needs. Depending upon individual preference, any one of 5 x 7 inch (12.5 x 17.8 cm), 5 x 12 inch* (12.5 x 30.5 cm) or 8 x 10 inch (20 x 25 cm) could be used. The two larger sizes can accommodate two separate projections; for example, right and left upper and lower third molar views on the same film. Where the smaller 5 x 7 inch cassette is employed, one projection only per film is practicable. In large radiography departments, patient identification information is transferred photographically onto the film through the "window" in the cassette. For the small volume anticipated in general practice there is a windowless version which is adequate and less expensive (**Fig. 1**).

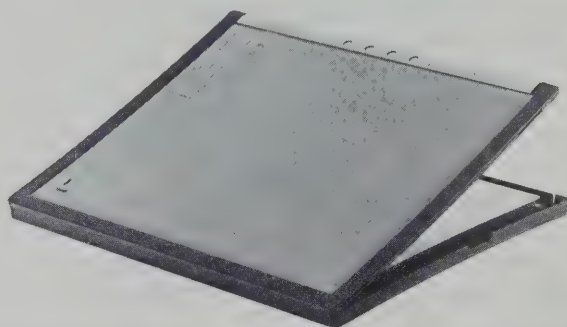


Fig. 1. A modern 8 x 10 inch windowless cassette (Kodak C-2). The cassette is hinged along one side.

Cassettes and screens can be purchased separately where a particular combination is selected by the practitioner; it is not necessary to accept a screen simply because the supplier happens to have it in stock. Screens are easily inserted into the cassettes. The larger cassettes and screens are more expensive and the rare earth screen costs more than the traditional calcium tungstate screen. A selection of cassettes and screens with their relative size and cost is shown in **Table I**. This is not intended to be a complete listing but is shown only to display the variety available.** Although the rare earth screen is considerably more expensive than the calcium tungstate screen, the increased efficiency of the rare earth produces superior images for much less radiation. However, the older-type screens can be used to produce an acceptable image. Screen/film combinations are described as "systems" and are rated according to "speed" or the amount of exposure needed to produce the desired density. The reference system, with a baseline speed of 1 times (1X), is the Dupont Par Speed screen combined with DuPont Cronex 4 film.⁹ All other

*Panoramic size

**Major manufacturers other than those noted are General Electric, Siemens and Agfa-Gevaert.

systems are then given a speed designation relating to the amount of exposure required to give an equivalent density (Table II). In our clinic, a 4X system using either Lanex Regular or Quanta III screens has produced clear, sharp images with relatively low patient dosages. The exposure time of 19 impulses is well within the capabilities of a modern timer.

Most of the newer panoramic units in service use a calcium tungstate screen with the speed to DuPont Hi Plus (Table II). Older equipment has a slow (1X) screen/film system. None are equipped by the manufacturer with rare earth screens but some studies have been reported so that this change can be expected in the near future.

Screen Films: Films designed for use with intensifying screens are much more sensitive to light than the direct exposure dental film. Therefore, darkrooms need to be light-tight and the correct safelighting is critical. The ML-2 Filter commonly used now with intraoral films is too bright for screen film. Either a Kodak Filter GBX, GBX-2 or WRATTEN 6B (brown) is required. Film is sold in boxes of 100 but unlike intraoral film once the box is open, there is a very high risk of fogging unless storage is light-tight. While the use of screen film does require a higher level of quality control, this could only be beneficial to the general level of radiography in the practice.

Once the screen is selected, then a film suited to that screen can be chosen. All screens emit white light but have peak emission in different parts of the spectrum. The calcium tungstate and lanthanum oxybromide screens

TABLE I
A Selection of Cassettes, Screens and Combinations

Individual cassettes and screen pairs	Size*	Approximate Cost
Pickar Cassette	5 x 7	75.00
Dupont Hi Plus Screens	5 x 7	19.00
Dupont Quanta III Screens	5 x 7	54.00
SS White Panorex Cassette	5 x 12	65.00
Dupont Hi Plus Screens	5 x 12	34.00
Dupont Quanta III Screens	5 x 12	92.00
Kodak C2 Cassette	8 x 10	124.00
Cassette/screen combinations		
Kodak C2 Cassette/ Lanex Regular Screens	8 x 10	210.00
Kodak C2 Cassette/ X-OMAT Regular Screens	8 x 10	140.00
Dupont Cassette/ Quanta III Screens	8 x 10	210.00
Dupont Cassette/ Hi Plus Screens	8 x 10	140.00

*Sizes are those of screen and film; the outside dimensions of the cassettes are slightly larger even though the screen size is used when identifying a cassette.

TABLE II
Systems Technical Data

Screen/Film System	Screen Phosphor	System Speed	Exposure in Seconds**	Entrance Skin Exposure mR
Dupont Cronex Par Speed/Cronex 4	Calcium Tungstate	1X	1.3	160
Kodak X-OMATIC Regular/Kodak XG	Barium Strontium Sulfate	1X	1.3	160
Dupont Cronex Hi Plus/Cronex 4	Calcium Tungstate	2X	.66	80
Kodak Lanex Regular/Kodak Ortho G	Gadolinium* Oxysulfide	4X	.33	40
3M Trimax 8/3M Trimax XD	Gadolinium Oxysulfide*	4X	.33	40
Dupont Cronex Quanta III/Cronex 7	Lanthanum Oxybromide*	4X	.33	40

*Rare earth screens

**Convert to impulses by multiplying seconds X 60 impulses e.g. Lanex Regular/Ortho G. exposure is .33 x 60 = 19 impulses.

peak in the blue range, whereas the gadolinium oxysulfide screens have maximum output in the green range. Barium screens have peak emission in the ultraviolet part of the spectrum but are designed for use with blue-sensitive film. **Table III** gives examples of available films; there are two speed groups and two peak light sensitivity groups. Providing the timer of the x-ray generator can cope with the fractional exposure times, the faster film will double the speed of the system. For processing of Orthochromatic film (e.g. Kodak Ortho G or Ortho H), the use of a GBX or GBX-2 filter, which removes green light from the safelight is essential. The 6B filter is appropriate for a blue-sensitive system. The GBX-2 can be used with all screen films.¹⁰

TABLE III		
Types of Screen Film		
Trade name screen pairs	Speed*	Peak colour sensitivity
Kodak XG*	Slow	Blue
Dupont Cronex 7	Slow	Blue
Kodak Ortho G	Slow	Green
3M Trimax XD	Slow	Green
Kodak XRP	Medium	Blue
Kodak Blue Brand	Medium	Blue
Dupont Cronex 4	Medium	Blue
Kodak Ortho H	Medium	Green
3M Trimax XM	Medium	Green

*100 5 x 12 films would cost \$72.80.

Generators: Any modern dental x-ray generator capable of x-ray emission between 65 to 80 kVp and which is equipped with an electronic timer is perfectly suited to this technique.

LATERAL JAW (OBLIQUE) TECHNIQUE

Loading the cassette: The technique is simple but does require care. The large sheet films are easily creased or marked with pressure from fingers. They need to be handled by the edges and removed slowly from the storage box. A common handling artefact, especially in dry winter conditions, is a black, branching image caused by static electricity; prior to loading a cassette, static can be discharged from the hand by touching metal. Load the film on the bench in a light-tight darkroom or if necessary in the daylight loader of the automatic processor. Place the film on the recessed front screen and close the cassette, (Fig. 2). A properly equipped darkroom is a great advantage for storage and handling of film.

Chairside Procedure: There are three useful views on each side of the face; these are determined by the position of the cassette in relation to the midsagittal plane (Fig. 3). The patient is seated upright with the occlusal plane parallel to the floor and the sagittal plane perpendicular. The cassette resting in the patient's palm, is held over the site. Keep the



Fig. 2. Sliding the 8 x 10 inch sheet film on to the recessed front screen. When the cassette is closed and latched, the film is squeezed between the two screens under considerable pressure. The resulting close adaptation is essential for maximum image sharpness. The cassette is a Kodak C-1 with the window seen at the upper corner of the back screen.

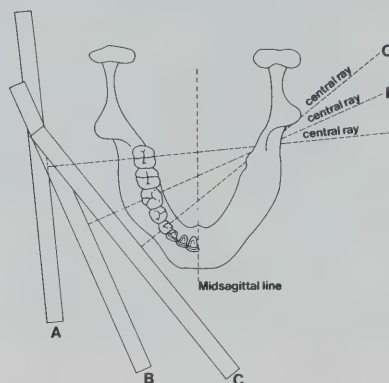


Fig. 3. A diagram showing three potential projections; A) ramus-3rd molar, B) three molars and C) bicuspid-canine. In the illustration the cassette is moved to parallel each site; the same effect is achieved by leaving the cassette in position A and rotating the head so that the nose is 1 inch and 1/4 inch from the cassette for views B and C respectively.

head extended to avoid superimposition of the vertebrae on the ramus. The lower edge of the cassette should lie below the inferior border of the mandible. An appropriate lead letter (R or L) is taped to the front face of the cassette and should lie close to the expected image circle. The



Fig. 4. Patient holding the cassette parallel to the sagittal plane for the ramus view of the right side.



Fig. 5. Skull view of the right molar projection as seen by the x-ray beam. The left mandible is much closer to the source of the radiation and will be projected up and to the left away from the image site.

central ray while directed at the middle of the object, i.e. the occlusal plane, should enter at a point one inch below and behind the angle of the ramus on the opposite side (Fig. 4 and 5). The vertical angle is approximately -20° . Because the beam in the vertical plane is not at a right angle to the film, the projection is termed an oblique view. The horizontal angle should be as close as possible to a perpendicular to the cassette.

If the smaller 5 x 7 inch cassette is used, only one side of the jaws can be shown per film. The larger 5 x 12 inch and 8 x 10 inch cassettes are quite capable of portraying both sides of the jaws on the one film. To avoid overlapping the image circles, aiming or orientation guides can be taped on the front of the cassette (Fig. 6). The letter "L" has been

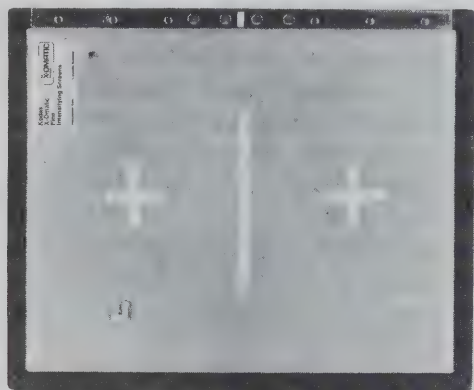


Fig. 6. An 8 x 10 inch cassette marked with a midline and two aiming points taped to the front face. With the central ray directed at the crosses, a separate right and left side can be discreetly projected on the same film. Note the reversed letter L.

deliberately reversed so that the processed film can be viewed as illustrated in Fig. 7; this shows both sides of the jaws in correct anatomical orientation from a buccal perspective.

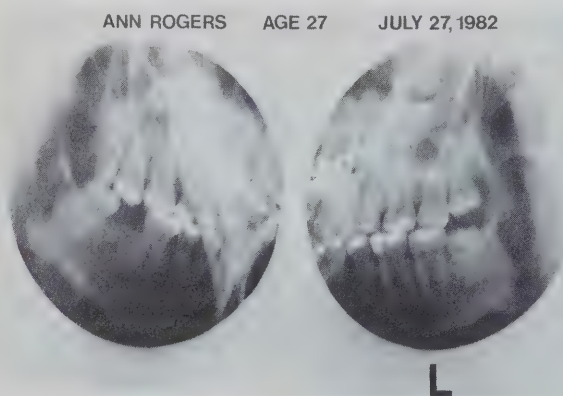


Fig. 7. Molar images of the patient's right and left side on one 8 x 10 inch film. The film is viewed from the buccal side according to our present convention for display of intraoral and panoramic film. The superimposed image of the opposite side is projected off the desired molar object. Only minimal scatter is seen below the circles. (The name on the film illustrated is fictitious.)

Identification and Processing: To identify the film, the patient data can be recorded on the film, prior to processing, with an ordinary "lead" pencil. This should be done

quickly though, for film should not be exposed to safelight for more than one minute. Alternatively, a brief identification could be made and then the complete data noted **after** the film is dry. Special pens using instantly dry, permanent inks are available.* All films except those especially designed for automatic high-speed processing (e.g. Kodak XRP) can be processed at the same factors used for manual processing of intraoral films. All sheet film can be processed through either long or short-cycle automatic units, with the exception of Blue Brand which should not be processed in the short-cycle (90 second) units.¹¹

Technical Data: The standard dental x-ray generator requires no modification for this technique **provided** the intraoral method used in the practice employs a 16 inch source to film (S.F.) distance. The x-ray beam in all modern units will be collimated to produce a 2.75 inch circle of radiation at the face. Divergence of the x-rays during the additional eight inches or so through the head to the cassette, results in an effective image circle of 3.75 inches at the film. This is quite adequate for most of the diagnostic conditions for which this film is prescribed. The resulting 24 inch S.F. distance and the collimation produce so little scatter that sheet lead blockers are **not** needed to cover the unused half of the cassette during exposure. While a generator equipped for short-cone (eight-inch S.F. distance) projections can be used, the resulting large circle of 4.5 inches and the excessive scatter produce an image of lesser quality while exposing the patient to unnecessary radiation. If the practitioner wishes to continue with the short S.F. intraoral method, then an extension tube which will have been correctly collimated by the manufacturer, should be purchased for the extraoral projections. The quality of the beam produced by the standard 70 kVp and 10 mA is quite satisfactory and the short exposure times are well within the capabilities of all electronic timers. Exposure times and dosages involved for the most frequently used systems are given in **Table II**.

RISK/BENEFIT CONSIDERATIONS

If the philosophy of screening radiography determines film choice, then the pantomograph which provides the most complete view of the maxilla and mandible will be preferred. However, even to the limited extent which screening was practised in medicine, it has been largely discredited and discontinued. The risk/benefit ratio is so unfavorable to the patient in terms of diagnostic benefit and to society in terms of cost, that except in very few specific instances, screening is not recommended. There is no convincing evidence for screening radiography in dentistry except in the use of bitewing radiography at initial examination for caries in susceptible age groups.¹² If our philosophy is the selective prescription of radiographs appropriate to the patient's diagnostic and treatment needs, then the pantomograph will have few indications.

*overhead-projection pens

Indeed, it will be limited to the examination of pathological or developmental conditions which require a view of the entire dentition and jaws.

Where indicated, the extraoral cassette with fast screens is much preferred to either intraoral or panoramic projections in terms of the efficient use of radiation to limit exposure of patients. The following example is used to illustrate this point. A common problem in the late teen or early adult patient is the failure of normal eruption of third molars, resulting in malocclusions and infections. Four intraoral projections, one in each site, using modern equipment and recommended methods (70 kVp, 10 mA, 2.5 mm Al filtration, 2.75" collimated beam, 16" S.F. distance) would require an entrance skin exposure (E.S.E.) of approximately 800 mR (4 films x 200 mR). A panoramic film to assess the same problem exposes the patient for about 21 seconds, covering a very considerable area of the head and neck superfluous to the third molar sites. The area covered by the panoramic film is 60 square inches compared with 24 square inches for the four (number 1.2) periapical films. An essential criterion for radiation control in medical radiography is the use of a beam size which is smaller than the film which is itself **selected to suit the size** of the diagnostic area. Even small reductions in the area exposed will produce significant radiation savings. Of equal importance, areas outside the site of the diagnostic problem are not unnecessarily irradiated. Where a panoramic film is used for the purpose of obtaining images of third molars, about two-thirds of the exposed film is **not** germane to the diagnostic problem. This represents gross site over-exposure unless there are cogent reasons for using the large film. The extensive area coverage is usually justified by the reasons given for screening radiography, although as suggested earlier there is very little if any factual evidence for the rationale of disclosure of occult lesions by chance.

The amount of radiation to which the patient is exposed during panoramic radiography is difficult to determine because of the tomographic method. Radiation is emitted in a linear or slit beam which traverses the object in a predetermined path. There is little scatter and the intensifying screens employed use the radiation more efficiently than the direct exposure intraoral method. For example, if the periapical film packet had intensifying screens and screen film it would require only 10 per cent or less of the exposure now used. Because of the narrow beam and the use of intensifying screens, few areas within the jaws and their processes receive doses equivalent to direct exposure radiography. However, there are several sites called rotational centres where the structures are exposed **for the entire 21 seconds**. These lie medial and posterior to the third molars where exposures of 750-1000 mR have been recorded. Other sites close to the thyroid gland are similarly exposed during the entire cycle. It is often stated, with some research support, that the radiation expenditure for one pantomograph is equivalent to four bitewing

films.¹³ However, a recent council report from the American Dental Association disputes the basis for this claim. The report asserts that in terms of risk to the radiation-sensitive tissues or organs in the area, the pantomograph is equivalent to a 21-22 film intraoral survey with rectangular collimation.¹⁴ However, with the current circular collimation (beam size 2.75 inches), this would be the equivalent of 10-11 periapical films.

Two lateral oblique films using a modern screen/film system (e.g. Lanex Regular+ Ortho G film) require a total of 38-40 impulses (2/3 second) for an estimated E.S.E. of approximately 80 mR. This expenditure produces images of the entire molar complement (**Fig. 7**). Compared with the estimated 800 mR for the four periapical films and the known absorbed dose with the pantomographs of at least 700 mR **at each side** of the jaw medial to the third molars, the risk/benefit ratio is significantly in favour of the lateral oblique. This, of course, assumes that only the molar region was of diagnostic concern and that the image quality of the screen film was appropriate to the need. In some instances the precise relationship of the third molar roots to the mandibular canal requires the exceptional image sharpness of the direct-exposure films and thus justifies the additional radiation expended.

CONCLUSIONS

In the past 10 years, the philosophy of dental radiographic usage has been completely reversed. In the new approach, we expect to use only selected diagnostic radiographs prescribed on an individual basis instead of routine, automatic screening radiography for all patients.¹⁵ Because of the growing exposure of our population to man-made ionizing radiation, all health sciences users of radiation will be required to expect direct patient benefit before prescribing this invasive form of examination. The risk for patients in the vast majority of screening radiographs is prudently presumed to outweigh the benefits. Our use of pantomographs in a screening role should be discontinued unless evidence of significant benefit is forthcoming. In the specialty practices of children's dentistry, in oral surgery or oral medicine, there will be occasions where a film displaying the entire jaws will be indispensable. For conditions such as Paget's disease, hyperparathyroidism, metastatic carcinoma or dentinal dysplasia, to name a few, the film would be most appropriate. However, for the majority of instances which require an extraoral projection (third molar problems are a prime example), the use of a pantomograph, while simple, is unquestionably extravagant in terms of radiation exposure. Two lateral jaw projections used to show all of the molar regions (i.e. upper and lower right and left) would expose the patient to about one-third of the radiation expended for a single intraoral periapical film. If the pantomograph is used, over 85 per cent of the film displays areas which are **unrelated** to the specific diagnostic

problem. The cost of the cassette at \$100-200 is less than one per cent of the pantomographic unit. In addition, the cassette can be used for many other extraoral projections not effectively portrayed by the pantomograph, viz. Water's or occipito-mental view of the maxillary sinus, lateral and postero-anterior skull, and temporomandibular views. This is a relatively inexpensive, simple but effective system which is radiation-efficient. It almost disappeared because of our enchantment with a new method which seemed to meet a perceived need.

When radiographs are prescribed only on the basis of diagnostic need and anticipated direct treatment benefit is the main criterion for exposing a patient to ionizing radiation, the indications for pantomography are very limited. Regrettably, if a decision is made to acquire the panoramic unit for a general practice, it must surely require overuse in the form of screening radiography to support the cost. The panoramic system is not recommended for general practice, whereas the use of an effective, efficient screen/film combination should be encouraged.

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REFERENCES

1. Christensen, E.E., Curry, T.S. and Dowdey, J.E. *An introduction to the physics of diagnostic radiology*. Ed. 2. Philadelphia, Lea and Febiger, 1978.
2. Rao, R.U.V., Fatouros, P.P. and James, A.E. Physical characteristic of modern radiographic screen-film systems. *Invest Radiol* 13:460-469, 1978.
3. Hudson, D.C., Kumpala, U.W. and Dickson, G. A panoramic dental x-ray machine. *U.S. Armed Forces Med J* 8:46-55, 1957.
4. Paatero, Y.V. New tomographical method for radiographing curved outer surfaces. *Acta radiol* 32:177-184, 1949.
5. Paatero, Y.V. Pantomography and orthopantomography. *Oral Surg* 14:947-953, 1961.
6. Brown, F.R., Shaver, J.W. and Hamel, D.A. The selection of patients for x-ray examinations. *U.S. Department of Health, Education and Welfare, Bureau of Radiological Health*. Rockville, Maryland, January 1980.
7. Valachovic, R.W. and Lurio, A.G. Risk-benefit considerations in pedodontic radiology. *Pediat Dent* 2:128-146, 1980.
8. Kogon, S.L. and Stephens, R.G. Selective radiography instead of screening pantomography — a risk/benefit evaluation. *J Canad Dent Assn* 48:271-275, 1982.
9. Skucas, J. and Gorski, J. Application of modern intensifying screens in diagnostic radiology, *Med Radiog & Photog* 56:25-36, 1980.
10. X-Rays in Dentistry. Rochester, N.Y. *Eastman Kodak Company*, 1977.
11. Technical Information No. 891. Rochester, N.Y. *Eastman Kodak Company*, 1982.
12. Stephens, R.G., Kogon, S.L., Wainright, R.J. et al. Information yield from routine bitewing radiographs for young adults. *J Canad Dent Assn* 47:247-252, 1981.

13. Manson-Hing, L.R. *Panoramic dental radiography* Ed. 2. Springfield, Illinois, Charles C Thomas, 1981.
14. Gibbs, S.J. Biological effects of radiation from dental radiography. Report of the Council on Dental Materials, Instruments and Equipment. *J. Amer Dent Assn* 105:275-281, 1982.
15. Recommendations in radiographic practices. March 1978. American Dental Association Council on Dental Materials and Devices. *J Amer Dent Assn* 96:485-486, 1978.

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Benign hemihyperplasia of the mandible

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SUMMARY

A case of benign hemihyperplasia of the right condylar and body area of the mandible is presented. This case does not seem to fit neatly into Jonck's classification for these problems.

Facial and mandibular asymmetry have been reported in the literature, either as isolated findings¹ or associated with other abnormalities.^{1,2,4-6} In the case of the latter, the other problems may be of paramount importance,^{5,6} or at least as important as the facial problems^{2,4} and be of major concern to the patient and practitioner. In other cases, the facial abnormality is the sole or pre-eminent problem.¹ In 1975, Jonck¹ proposed a classification of four groups for these isolated asymmetries.

We present an example of an isolated hemihyperplasia, found on radiological investigation for an unrelated cause, that does not appear to fall readily into one of these categories.

CASE REPORT

P.G., a 30-year-old caucasian woman, was referred by her family dentist for removal of impacted third molars. A pantomographic radiograph was made at the request of the surgeon, and revealed a marked asymmetry of the two mandibular rami and condyles and a lesser asymmetry of the bodies (**Fig. 1**). Clinical examination showed that the right side of the face in the region of the angle and submandibular areas was slightly larger than the left (**Fig. 2**), a fact unnoticed by the patient. The midlines of the dental arches were also slightly misaligned, with the mandibular teeth deviated to the left, as would be expected by the overgrowth of the right mandible (**Fig. 3**). The teeth did not appear to be of different sizes bilaterally

SOMMAIRE

Voici un cas d'hémihyperplasie bénigne affectant le condyle du maxillaire inférieur droit. Ce cas ne semble pas entrer dans la classification proposée par Jonck pour ce genre de problèmes.

ally and dental occlusion was within normal limits. The patient had no other apparently related developmental abnormalities, and inquiries revealed no other family members in whom asymmetries had been recognized.

The apparent magnitude of the clinical asymmetry was not to the same extent as that found radiographically. There was no loss of function. After discussion with the patient, it was agreed that treatment of the apparently benign hyperplasia was not necessary. The third molars were removed without complications, under local anaesthesia.

DISCUSSION

Hemihyperplasia (hemihypertrophy) of all or part of the mandible is an uncommon finding. A review of approximately 4,000 pantomographic radiographs in the dental clinic at the University of Saskatchewan revealed no other such asymmetry. However, gross asymmetry has been found as an isolated case¹ or as part of a systemic disease with other manifestations.^{1,2,4-6} It has been found to be inherited as a syndrome in families, along with the other associated abnormalities.² In the more severe cases, improvement of aesthetics and function may prove to be a challenge to the surgeon. In the case presented here, the clinical appearance of the asymmetry was so subtle as to go unnoticed for many years. Jonck¹ classified facial asymmetry into four groups and discussed the appearance

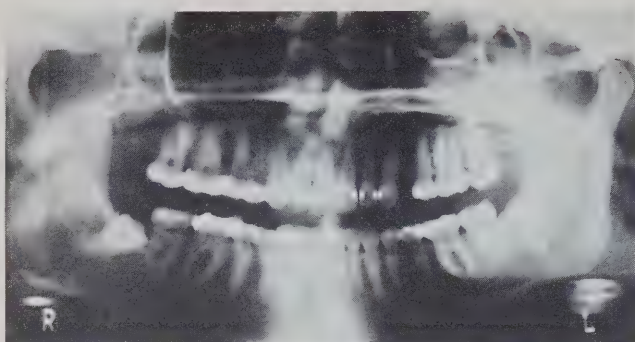


Fig. 1. The pantomograph made for investigation of third molars reveals the hyperplasia of the right mandible.

and indicated treatments. His first group had no deviation of the chin, based on central incisor relationships. There was an open bite on the premolar region of the affected side. In the second group, the chin deviation was apparent and malocclusion, with a crossbite, was evident. In the third group, there is chin deviation and development of a lateral open bite, which appears after the second decade. The occlusal plane is lowered. The fourth group contains neoplastic and dysplastic conditions resulting in facial asymmetry. Our patient does not appear to fall into any of these categories. There is deviation to the left based on the midlines of the incisors, as is seen in groups two and three, but no malocclusion such as open or cross-bite. Since the patient was unaware of the hypoplasia, it is not known how long it has been present. She will be followed up to find out if problems in occlusion occur; two years after the initial discovery, there has been no change.

Dr. Ruprecht is a professor of oral and maxillofacial radiology, Department of Biomedical Dental Sciences, King Saud University, College of Dentistry, P.O. Box 5967, Riyadh, Saudi Arabia.

Dr. Ross is professor and head, Department of Oral Surgery and Anesthesia, University of Saskatchewan, Saskatoon, Sask.

Dr. Knoblauch is in private practice in Regina, Sask.

Reprint requests to Dr. Ruprecht.



Fig. 2. The right side of the face is longer, and fuller in the neck, than the left side, although this is noticeable only on careful investigation.

REFERENCES

1. Jonck, L.M. Facial asymmetry and condylar hyperplasia. *Oral Surg* 40:567, 1975.
2. Bencze, J., Schnitzler, A. and Walawska, J. Dominant inheritance of hemifacial hyperplasia associated with strabismus. *Oral Surg* 35:489, 1973.
3. Burchfield, D. and Escobar, V. Familial facial asymmetry (autosomal dominant hemihypertrophy). *Oral Surg* 50:321, 1980.
4. Mingrone, F. L'emipertrofia congenita. Presentazione di un caso e considerazioni embriopatogenetiche. *Min Chirurgica* 26:1272, 1971.
5. Ritter, R. and Siafarikas, K. Hemihypertrophy in a boy with renal polycystic disease: varied patterns of presentation of renal polycystic disease in his family. *Pediat Radiol* 5:98, 1976.
6. Schnakenburg, K.V., Muller, M., Dorner, K. et al. Congenital hemihypertrophy and malignant giant pheochromocytoma — a previously undescribed coincidence. *Europ J Pediat* 122:263, 1963.

Announcements/Avis

**1983
CANADA**

July/juillet

"ADG-Toronto: A New Leaf on Learning", the 1983 Table Clinics program presented by the Academy of General Dentistry, Sheraton Centre, Toronto, Ontario, July 16-20, 1983. Contact: Department of Meeting Planning, AGD, Suite 1200, 211 E. Chicago Avenue, Chicago, Illinois 60611; (312) 440-4300.

August/août

The Canadian Society of Forensic Science is holding their annual conference, Hotel Georgia, Vancouver, British Columbia, August 13-19 1983. For registration and program information contact: Joanne Cottingham, Executive Secretary, Canadian Society of Forensic Science, Suite 303-171 Nepean St. Ottawa Ont. K2P 0B4, (613) 235-7112.

September/septembre

The Ernest C. Manning Awards Foundation will present its second annual award to an innovative Canadian in September 1983. The award of \$75,000 is presented to a Canadian doing innovative research or with an innovative invention in categories which cover the life sciences, social sciences and government. For further information contact: George Dunlap, Ernest C. Manning Awards Foundation, 2300, 639 Fifth Ave. S.W. Calgary Alta. T2P 0M9 phone, 403-266-7571.

Meeting of the Canadian Academy of Prosthodontics, Vancouver, B.C., September 22-24, 1983. Contact: Dr. B.M. Jackson, 22 Water Street S., Kitchener, Ontario N2G 4K4.

The Canadian Academy of Restorative Dentistry annual meeting, Vancouver British Columbia, September 23-24 1983. Theme this year is "Esthetics — A Multidisciplinary Approach." Contact: Dr. Terry Kline, 1505-805 West Broadway, Vancouver B.C. V5Z 1K1.

The Bytown Study Club in Ottawa Ontario presents Dr. John Flocken for a one day lecture and one day participation course on electro-surgery. September

23-24, 1983. Contact: Dr. D.J. Smith, 613-232-7880 for information.

The Royal College of Dentists of Canada is holding its annual meeting, convocation and annual dinner September 23-24, in Vancouver British Columbia. Contact: Kay Montgomery, Executive Secretary, The Royal College of Dentists of Canada, Suite 614, 170 St. George St. Toronto, Ontario, M5R 2M8, (416) 964-7263 for more information.

The Association of Prosthodontists of Canada, Annual Meeting, September 24-25, in Vancouver, B.C. Program Chairman: Dr. D. Donaldson, Faculty of Dentistry, University of British Columbia.

The Royal College of Dentists of Canada Symposium on Periodontal Diseases, generously supported by Colgate-Palmolive Canada, as part of the Canadian Dental Association's National Convention, Vancouver, B.C., Monday, September 26, 1983. The keynote speaker for the Symposium will be Dr. Harald Loe, newly appointed Director of the National Institute of Dental Research, Bethesda, Maryland, and presently Dean of the School of Dental Medicine at The University of Connecticut.

First International Symposium on: "Today's Research, Tomorrow's Health Care Delivery." At Faculty of Dentistry, Dalhousie University, Halifax, N.S. September 30 — October 1. Contact: International Symposium, Anniversary 75, Continuing Education Office, Faculty of Dentistry, Dalhousie University, Halifax, N.S. B3H 3J5. Telephone (902) 424-2248 or 424-6507.

Canadian Dental Association 1983 National Convention/l'Association dentaire canadienne Congress Nationale, Vancouver British Columbia, September 25-28 1983.

October/octobre

The Canadian Academy of Endodontics is holding its annual general meeting Winnipeg Manitoba, October 14-16, 1983. Contact: Dr. W. H. Christie, 233 Kennedy St. Suite 506, Winnipeg Man. R3C 3J5.

The Canadian Pain Society annual meeting and multidisciplinary conference on

pain, Saskatoon, Saskatchewan, October 14-16 1983. Contact: Pain '83, Conference Office, Kirk Hall 105, University of Saskatchewan, Saskatoon, Saskatchewan, S7N 0W0 for more information.

November/novembre

The 25th Anniversary Symposium entitled "Will Basic Research Influence Clinical Dentistry in the Future?", Faculty of Dentistry, University of Manitoba, Winnipeg, Manitoba. November 18-19 1983. Contact Dean, Dr. A. Schwartz, Faculty of Dentistry, University of Manitoba, 780 Bannatyne Ave., Room D-113, Winnipeg, Man. R3E 0W3. Phone 204-786-3631.

Toronto Academy of Dentistry Annual Winter Clinic, Royal York Hotel, Toronto Ont. November 24, 1983. Contact: Academy of Dentistry, 234 St George St. Toronto Ont. M5R 2P2, Telephone 416-967-5649.

International

September/septembre

The Seventh Annual Conference on Endodontics, University of Pennsylvania, Philadelphia PA., September 12-15 1983. Contact: University of Pennsylvania, School of Dental Medicine, Division of Continuing Education, 4001 Spruce St. Philadelphia PA. USA 19104.

The 4th Congreso Internacional de Ortodoncia, Buenos Aires, Argentina, September 16-21, 1983. Plaza Hotel. Contact Sociedad Argentina de Ortodoncia, Montevideo, 971 (1019) Buenos Aires, Argentina.

The American Academy of Implant Dentistry 1983 Annual Meeting/World Assembly, Sheraton Washington Hotel, Washington D.C. September 18-23 1983. For information and registration, contact: the American Academy of Implant Dentistry, 515 Washington St., P. O. Box 2002, Abington, Massachusetts, 02351, (617) 878-7990.

The American Academy of Periodontology 69th Annual Meeting, Atlanta Georgia, September 28-October 1, 1983. Contact: the American Academy of Periodontology, 211 E. Chicago Ave.

Announcements

Room 924, Chicago Illinois, 60611, USA. 312-787-5518.

The 21 Deutscher Zahnarztag (German Dental Meeting), Berlin September 29-October 1 1983. Contact: Prof. Dr. Peter Schulz, Universitätsstraße 73, 5000, Köln, 41, (Lindenthal) Telephone, (0221) 401041.

International Association for Orthodontics-American Orthodontic Society combined annual meeting, Westin Hotel, Copley Plaza, Chicago Illinois, September 29-October 2, 1983. Contact: International Association for Orthodontics, 211 E. Chicago Ave, Suite 915, Chicago Ill. 60611 (312) 642-2602.

October/octobre

American Dental Association 124th Annual Session, Anaheim, California, October 1-6 1983. Scientific Session October 1-4. Contact: Council on International Relations, American Dental Association, 211 E. Chicago Ave., Chicago, Illinois, 60611. (312) 440-2726 for more information.

The First South African Endodontic Congress, Johannesburg, South Africa, October 2-7, 1983. Post Congress tours are also available. Contact either: Westpoint Travels Ltd, 11 Biccard St. (Corner Smit St.) Braamfontain, 2001, South Africa. or South African Tourist Corporation, 20 Eglinton West, Toronto, Ont. Phone: 416-482-7077.

The Prosthodontics Research Group of the International Association for Dental Research announces the continuation of its Novice Award. Sponsored by the Coors Biomedical Company, the award is \$1,000. Eligible participants are those making their first presentation at the IADR/AADR meeting in Dallas, Texas March 15-18, 1984. Abstracts due no later than **October 4, 1983**. Contact: Dr. John Houston, 700 Bay St. Suite 404, Toronto Ont. M5G 1Z6.

UCLA Extension and UCLA School of Dentistry holding the West Coast Conference on Geriatric Dentistry, Sheraton Plaza La Reina Hotel, Los Angeles, California, October 21-23, 1983. Contact: Ronald L. Linder, Continuing Education in Health Sciences, UCLA Extension, P. O. Box 24901, Los Angeles, California, 90024.

Seventh Annual American Dental Association Conference on Foods, Nutrition and Dental Health. Chicago, Illinois, October 27, 28 at Harold Hillenbrand Auditorium, 211 East Chicago Ave. Abstracts of research findings related to food cariogenicity and technology may be submitted for oral or poster presentation.

Contact Joan C. Sayers, Staff Coordinator, FNDH Program Research Institute, ADA Health Foundation at the above address, in Chicago, Ill. 60611, or telephone (312) 440-2530.

November/novembre

Fédération Dentaire Internationale, 71st Annual World Dental Congress, Tokyo Japan, November 14-20, 1983. Contact: Japan Dental Association, 1-20, Kudankita 4-chome, Chiyoda-ku, Tokyo 102, Japan.

1984+

The Centre of Pediatric Dentistry is organizing the "Second Dominican Congress of Pediatric Dentistry" in Santo Domingo, January 27-29 1984. Congress themes are Prevention and Clinical Aspects. Fees are \$50 U.S. Contact: Dr. Franklin Garcia-Godoy, Centre de Odontologie Pédiatrique, P.O. Box 2753 Santo Domingo, Dominican Republic, Telephone 809-689-4277 afternoons and evenings.

Miami Winter Meeting, Fontainebleu Hilton, Miami Beach Florida, February 2-4 1983. This is a program for international clinicians. Contact: the East Coast District Dental Society, 420 S. Dixie Highway, Suite 2-E, Coral Gables, Florida, 33146.

La Commission d'Études Biomatériaux créée par le Centre Français de la Corrosion (Cefracor) organise à Strasbourg Germany au Palais de Conseil de l'Europe sur le thème "Corrosion et dégradation des biomatériaux et leurs incidences cliniques." les 5-7 Mars 1984. Pour tous renseignements s'adresser au Secrétariat du CEFRACOR, 28 rue Saint Dominique 75 07 PARIS. Tél: 705.10.73 ou 705.39.26.

Advanced Paedodontics Course 338, The British Council, London/Newcastle Upon Tyne, March 18-30, 1984. Contact: The British Council, c/o The British High Commission, 80 Elgin St., Ottawa, Ont. K1P 5K7.

International Association of Oral Pathologists general meeting, to be held in Noordwijkerhout, the Netherlands, June 4-7 1984. Contact: Congress Secretariat, 2nd Meeting of the International Association of Oral Pathologists, c/o Mrs. R. Mooijen, AZVU Pathologisch Instituut, De Boelelaan 1117, MB Amsterdam, the Netherlands.

Ninth Annual Congress of Dietetics, Toronto, Ontario, July 1-6, 1984. Hilton Harbour Castle Hotel. Topics covered

will be varied. Continuing Education credits will be assessed for ADA and CDA registered dietitians. Contact: Congress Canada, Suite 603, 250 University Ave., Toronto, Ont. 416-591-1498.

The New Zealand Dental Association is holding its biennial conference, Auckland New Zealand, August 12-17 1984. Contact: Dr. N. P. Ewart, Conference Secretary, P.O. Box 28085 Auckland 5, New Zealand.

Canadian Dental Association 1984 National Convention/l'Association dentaire canadienne congress nationale, 1984. Montreal Quebec, April 8-12, 1984. Contact Dr. Morton Lang, 3565 Berri St. Suite 200, Montreal Que, H2L 4G3. Phone: (514) 842-9112.

11th Asian Pacific Dental Congress, Excelsior Hotel, Hong Kong, November 5-10 1984. Contact: Congress Secretariat, International Conference Consultants, 57, Wyndham St. 1st Floor, Central, Hong Kong.

Second International Conference "Clinical Factors and Mechanisms Influencing Bone Growth", University of California, Los Angeles, January 1985. Abstracts submitted no later than June 30, 1984. Contact: Andrew Dixon or Bernard Sarnat, Dental Research Institute, School of Dentistry, School of Medicine, Centre for Health Sciences, University of California, Los Angeles, (UCLA), Los Angeles, California, 90024.

Canadian Dental Association 1985 National Convention/l'Association dentaire canadienne, congress nationale 1985, Ottawa Ontario, September 29-October 2, 1985.

Scandinavia's largest international trade fair, "Swedental '84" will be held in Stockholm Sweden, November 14-16 1984. Contact Stursberg/Hewitt/Radley, U.S. Representatives, 6671 Sunset Blvd. Suite 1525, Los Angeles California. 90028, 213-462-6260.

The Indian Dental Association is presenting its 39th annual conference, Bombay India, last week of December 1984. Contact: Dr. L. K. Ghandi, Conference Secretary, 39th IDA Conference, C-56 N.D.S.E. Part-II, New Delhi, 110049.

The 24th Australian Dental Congress will be held in Brisbane Australia May 12-17 1985. The Congress is hosted by the Australian Dental Association. Contact: The Congress Secretariat, P.O. Box 29, Parkville, Vic. Australia, 3052.

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Reichmound, Quebec

Vol. 49 No. 8

Canadian
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August
1983

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AIDS — and dentistry
SIDA — et la dentisterie



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Crest helps reverse the caries process... even after it's started.

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"Crest contains sodium fluoride which is, in our opinion, an effective decay preventive agent, and is of significant value when used in a conscientiously applied program of oral hygiene and regular professional care."

CANADIAN DENTAL ASSOCIATION

References: 1. Ostrom, C.A. et al., J Dent Res, 56(3):212-221, 1977. 2. Arends, J., ten Cate, J.M., J Cryst Gro, 53:135-147, 1981. 3. Silverstone, L.M., Caries Res, 11 (Suppl. 1):59-84, 1977. 4. Data on file at Procter & Gamble, Inc. 5. Mobley, M.J., J Dent Res, 60(12):1943-1948, 1981. For further information, please contact Crest Professional Services, P.O. Box 355, Station A, Toronto, Ontario M5W 1C5

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de l'Association
Dentaire
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Convention Highlights

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Scientific Programs

A tabulated listing of scientific presentations indicates what is happening each day of the convention, with exact times and locations.

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Convention Exhibitors

A tabulated listing of exhibitors, location of their booths and a word on their products.

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Supplier outlines benefits of visiting technical exhibits at conventions

An executive officer of a prominent international dental supply house offers words of advice about the value of visiting booths in the exhibit area.

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Dr. Christopher A. McCulloch named CDRF Award recipient

Dr. McCulloch, a researcher at the University of Toronto, will receive the 1983 CDRF Award in Vancouver.

534

Three distinguished members of the profession will be honored at Convention

Drs. Douglas J. Yeo, William Miller and John Frederick Reid, will be honored for outstanding contributions to dentistry in Canada, at the CDA Convention.

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Terry Fox Cancer Clerkships awarded to three dental students

This is the first time that the National Cancer Institute of Canada has made Terry Fox Cancer Clerkships available to dental students.

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Manitoba dental faculty marks 25th Anniversary

The founding Dean of the Faculty of Dentistry, University of Manitoba, was the keynote speaker at that faculty's 25th Anniversary.

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National Universities Week planned for October

Universities from coast to coast will hold a week-long celebration to mark achievements of Canadian higher education.

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Sound legal advice for practitioners is presented in this special article prepared by members of a major Toronto law firm.

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Medical Emergencies in Dentistry

"The text is an abbreviated version of an already valuable book, 'Emergencies in Dental Practice'."

— Dr. J. Duncan Wray

An Introduction to Functional Occlusion

"This text should have a place on most dentists' library shelf."

— Dr. R. A. Clappison

Killey's Fracture of the Middle Third of the Facial Skeleton (4th Ed.)

"An excellent introduction, not only for post-graduate and graduate students, but the undergraduate as well."

— Dr. Eric Millar

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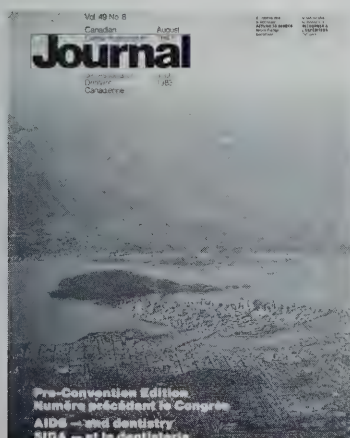
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Pre-Convention
EditionAIDS — and
dentistry

Published monthly by the Canadian Dental Association at 1815 Alta Vista Drive, Ottawa, Ont. K1G 3Y6. Copyright 1982 by the Canadian Dental Association. Authorized as Second Class Mail Registration Number 5384. Postage paid at Ottawa.

Notice of change of address should be received before the 10th of the month, to become effective the following month.

Subscriptions: All subscriptions payable in advance in Canadian funds in Canada — \$35; United States — \$35; all other — \$38. Subscriptions are for 12 editions, not necessarily conforming with the calendar year.

All statements of opinion and supposed fact are published on the authority of the author who submits them and do not necessarily express the views of the Canadian Dental Association, unless such statements or opinions have been adopted by the Association. The editor reserves the right to edit all copy submitted to the Journal.

ISSN0709 8936

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- 510 Selon les Drs Walter H. Sussel et R. G. Mathias, il est temps de revoir les normes touchant le contrôle de la contamination dans les cabinets dentaires.

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- 585 **Formulaire d'Inscription**

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- 558 **Trois membres éminents de la profession seront honorés par l'ADC**
Lors du Congrès de l'ADC, on rendra hommage aux Drs Douglas J. Yeo, William Miller et John Frederick Reid, pour leur remarquable apport à la dentisterie canadienne.

- 559 **Le Dr C. A. McCulloch est récipiendaire du Prix FCRD**
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Canadian
Dental Association

August
1983

Journal

de l'Association
Dentaire
Canadienne

août
1983

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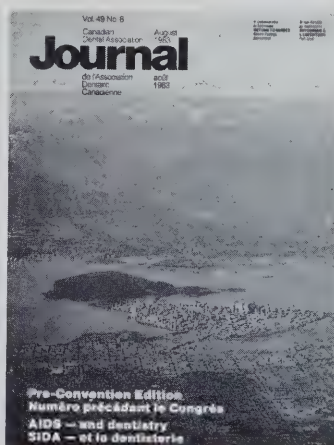
Hygiène dentaire

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Numéro précédant le Congrès

SIDA — et la dentisterie

Publié chaque mois à 1815 Alta Vista Drive, Ottawa, Ont. K1G 3Y6 par l'Association Dentaire Canadienne. Copyright 1982 par l'Association Dentaire Canadienne. Autorisé comme courrier de deuxième classe, enregistrement n° 5384. Port payé — Ottawa.

Veuillez nous prévenir le 10 du mois de tout changement d'adresse pour recevoir le journal à votre nouvelle adresse le mois suivant.

Tout abonnement est payable à l'avance en dollars canadiens. Au Canada — \$35, au États-Unis — \$35, partout ailleurs — \$38. Il comprend 12 numéros qui ne correspondent pas nécessairement avec les mois d'une même année.

La direction du Journal ne partage pas nécessairement les opinions qu'expriment ses collaborateurs à moins que l'Association Dentaire Canadienne ne les ait adoptées officiellement.

ISSN 0709-8936

THE ROLE OF CONVENTION SCIENTIFIC SESSIONS IN CONTINUING EDUCATION

I attend the Convention to have fun with old friends and colleagues — to enjoy a release from the tension of a year in busy practice.”

Many of those who attend conventions will quite frankly admit to that point of view. Some, feeling a bit guilty, perhaps, share the same philosophy, but won't openly confess.

This contention is in part, justified. There are some aspects of the Convention program that offer opportunities to do just that — have fun.

But that is only a small aspect of this conference.

There are much more constructive, self-improvement aspects in the area of continuing education -raising your level of professionalism.

In this era of rapid change in techniques, development of new dental materials and devices, new concepts in procedure, surely no dentist can convince himself or herself to believe he or she needs no further education.

The scientific program of the Convention presents these new concepts and techniques.

Sessions are led by speakers of international stature in their respective fields of specialization.

These sessions will be held only a few steps away from your hotel room. Surely the opportunity for high quality continuing education is only so accessible at a CDA Convention.

These opportunities are available on a broad basis to those attending the Convention, and deserve to be attended in the same dimension.

The Journal's scientific editors have favored us with their thoughts on this important subject and their messages to CDA Convention registrants appear below.

Clarence Metcalfe
Editor

'ATTEND AS MANY SESSIONS AS POSSIBLE'

The practice of dentistry today is in a state of dynamic change. A practitioner is confronted with retail store dental practice, modernized equipment and computers for streamlining office procedures. There has also been a proliferation of new dental materials and techniques in the last few years. It can be very difficult for a busy practitioner to keep aware of all these latest developments.



Dr. R.S. Turnbull

The obvious way is to read dental journals, however, even the number of journals and scientific articles are becoming overwhelming. There is also mounting pressure in some provinces for mandatory continuing education.

Attending a national dental convention is probably one of the best methods of continuing education. It provides a refreshing break from everyday practice, scientific sessions are presented and manufacturers display the latest dental materials. However, sometimes one tends to put more emphasis on the social aspects of a convention rather than the scientific. The CDA organization committee has arranged an excellent scientific program for the CDA convention in Vancouver, September 26-28. There are symposiums, panel discussions, teaching conferences, table clinics and lectures by world authorities. In addition, there is a complete social events program.

Why not make a resolution this year to attend the convention and certainly have a good time, but attend as many scientific sessions as possible. Your patients and indeed the viability of your practice will benefit.

R.S. Turnbull
Scientific Editor

LES SÉANCES SCIENTIFIQUES DU CONGRÈS, UN LIEU PROPICE À LA FORMATION CONTINUE

“**J**e vais au congrès pour revoir de vieux amis et collègues, pour m’amuser et me détendre après une année de travail ardu.”

Bon nombre de congressistes l’admettent volontiers, en toute franchise. Certains autres sont du même avis mais, se sentant peut-être un peu coupables, n’osent l’avouer ouvertement.

Ils ont pourtant tous partiellement raison, puisque certaines activités inscrites au programme du congrès leur offrent l’occasion de ne faire que cela... s’amuser.

Mais ce n’est là qu’une petite partie du programme qui comprend, dans une perspective de formation continue, beaucoup plus d’activités de développement et de perfectionnement personnels, offrant à chacun l’occasion d’avancer sur le plan professionnel.

Dans une période où les techniques évoluent rapidement, où de nouveaux matériaux et appareils dentaires sont constamment mis au point, où apparaissent de nou-

velles méthodes de travail, aucun dentiste ne peut prétendre ne plus avoir besoin de formation.

Les activités scientifiques du congrès permettront de présenter ces nouvelles méthodes et ces nouvelles techniques.

Les séances de travail seront menées par des conférenciers qui ont acquis une réputation internationale dans leur domaine de spécialisation.

Elles auront lieu à quelques pas seulement de votre hôtel. Certes, ce n’est qu’au congrès de l’ADC que vous avez l’occasion d’accéder ainsi à un programme de formation continue de qualité supérieure.

Les congressistes auront de nombreuses occasions de parfaire leurs connaissances. Il est à souhaiter qu’ils soient aussi nombreux à les saisir.

Les rédacteurs scientifiques du Journal ont eu l’amabilité de nous présenter leur point de vue sur cette importante question. Voici leur message.

LE PROGRAMME SCIENTIFIQUE, UN DEVOIR — UN BESOIN

Le dentiste est un professionnel et selon la plupart des sociologues le critère ultime de professionnalisme réside dans la réalisation de son “autonomie”. En d’autres termes le dentiste doit acquérir le plus de connaissances possibles afin d’être en mesure de produire des soins dentaires les plus complets et de la plus haute qualité possible. L’éducation permanente est certainement une des avenues les plus prometteuses pour atteindre ce but.



Le Dr Pierre Desautels

De plus, selon le code éthique professionnel, le dentiste a le devoir de maintenir ses connaissances à jour. À cause des progrès en recherche dentaire, des nouveaux développements technologiques et des innovations dans la façon de dispenser les soins de la santé, la formation du dentiste ne se termine ni ne peut se terminer lorsqu’il obtient son diplôme d’une faculté de médecine dentaire.

Les consommateurs des services de santé sont aussi beaucoup plus renseignés et beaucoup moins réticents que dans le passé lorsqu’il s’agit de poser des questions touchant la qualité ou la nature des services qui leur sont donnés.

La dentisterie comme corps professionnel, doit prendre ses responsabilités et fournir à ses membres les moyens de se maintenir à la page. C’est pourquoi encore cette année, l’A.D.C. organise un congrès annuel au cours duquel on offre au dentiste une myriade d’activités tant d’ordre scientifique et professionnel que social. Sur le plan scientifique, l’A.D.C. ne ménage rien pour offrir à la profession les services de sommités nationales et internationales. Le Journal invite donc tous et chacun à s’inscrire au congrès et à participer à ses diverses présentations scientifiques.

L’A.D.C. investit dans la profession. Prenons en tous avantage. Assister aux activités scientifiques du congrès, c’est un devoir, c’est un besoin.

*Pierre Desautels
Rédacteur scientifique francophone
Journal de l’A.D.C.*

TAKE A CLOSE LOOK



A REALLY CLOSE LOOK...

Espe and Ash Temple want you to take a really close look at the restorative system of the eighties. A system that starts with the technology of the Elipar, the trouble-free, easy to handle, visible curing light.

The Elipar is a lightweight gun-shaped transmitter with a simple, fully flexible, non-breakable five foot electric cord which means it can be manipulated repeatedly without fear of breakage.

Unlike fibre optics, the Elipar light intensity is always the same, which means that polymerization is deep, quick and dependable. Elipar gives 50% more light and can quickly cure large areas such as crown restorations, veneers, or bonding orthodontic brackets.

The rest of the Espe system consists of Visio-Dispers — a stiff, non-tacky, non-porous composite material which can be cured in twenty seconds and polished immediately to a life-like lustre.

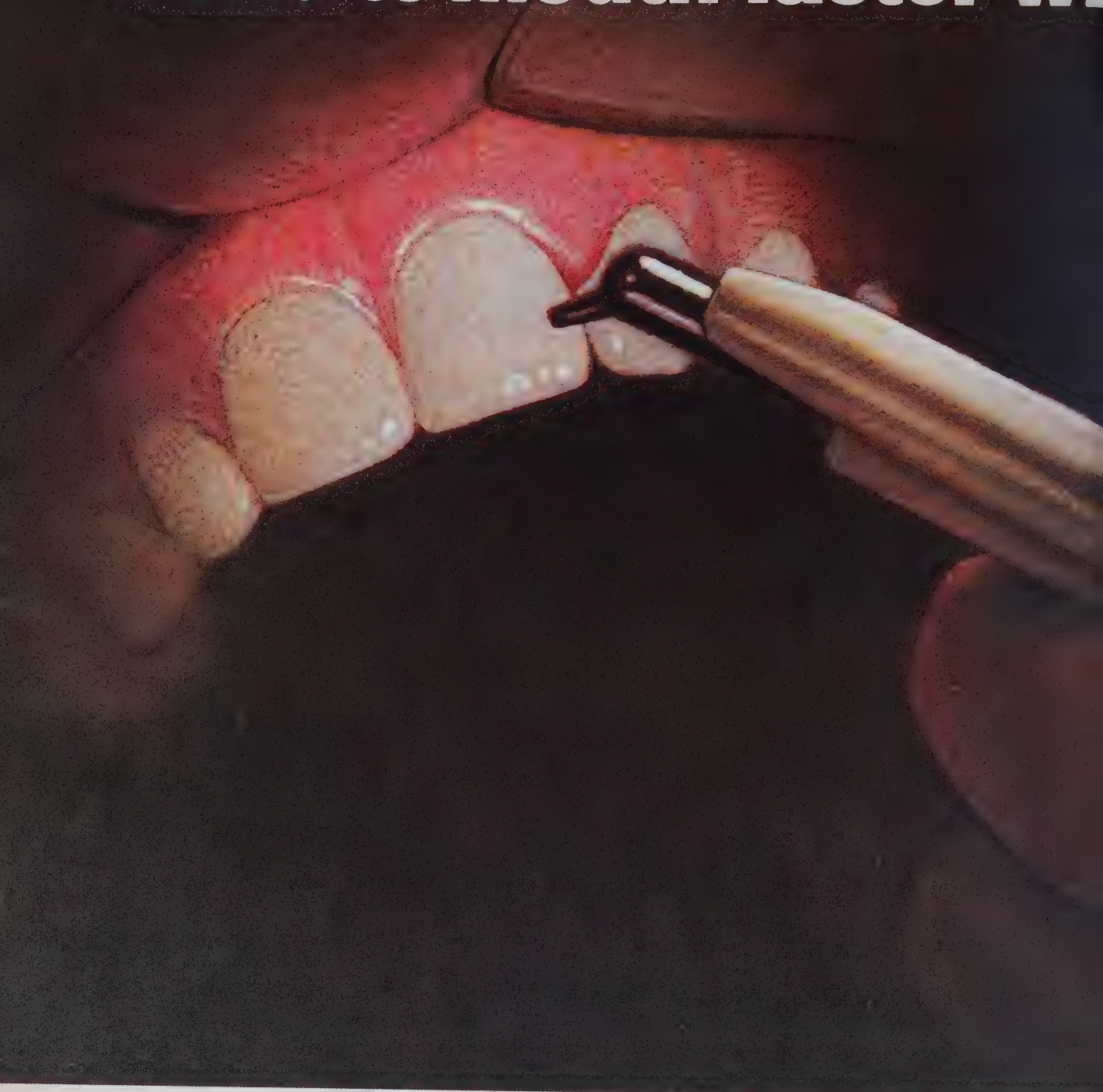
The last part of the Espe system is Visio-Bond, a single component light cured resin requiring no mixing. Visio-Bond is perfect for clear plastic orthodontic brackets and can be polymerized simultaneously with Visio-Dispers.

The restorative system of the eighties — the Elipar curing light, Visio-Dispers composite material and Visio-Bond light cured resin — from Espe and Ash Temple who both know what goes into helping dentists.

**Ash
Temple**
LIMITED

We know what goes into helping dentists.

Hand to mouth faster wi



Caulk COMPULES ampules give you less than ever before. Less mixing. Less mess. Less waste. And less cost.

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Our remarkable dispensing system has three PRISMA® SYSTEM materials to light the way. PRISMA-FIL® High Density Composite, PRISMA-FINE™ Microfilled Composite and FUL-FIL™ Posterior Restorative. Now available in COMPULES ampules as well as bulk syringes.

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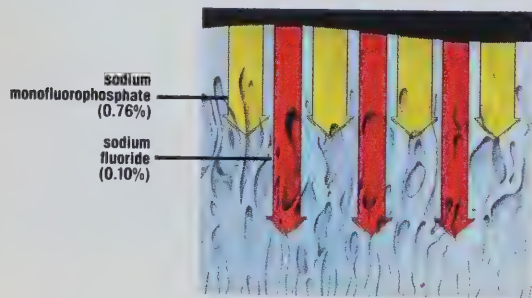
How Colgate's two fluoride formula achieves more complete remineralization resulting in nearly double the cavity protection of a single fluoride formula.*

A major role of fluoride in cavity prevention is to accelerate the process by which demineralized enamel is rebuilt (1-4). This reverses white spot lesions which would otherwise become cavities.

Today's Colgate is the first toothpaste with two fluorides—sodium monofluorophosphate at 0.76% and sodium fluoride at 0.10%. Their differing molecular structures mean these fluorides work at different levels in tooth enamel. The result, at these concentrations, is more complete remineralization of white spot lesions than either can achieve alone.

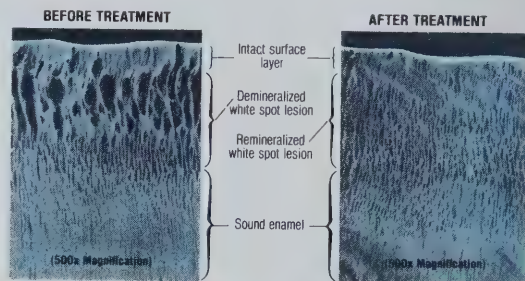
Why these two fluorides remineralize more completely.

Fluorides reach white spot lesions by penetrating enamel through the interprismatic spaces. Sodium monofluorophosphate, being a larger molecule, reacts with enamel primarily at the surface of a white spot lesion. Sodium fluoride, a smaller molecule, penetrates deeper into the lesion.



Because they work at different levels the two fluorides complement each other, enhancing remineralization over a greater area of the lesion than a single fluoride* alone.

This complementary action means more fluoride is available to enhance remineralization over a greater area of the lesion, than is provided by either fluoride alone (5,6).



This more complete remineralization has been demonstrated in laboratory studies (7), and can be seen in the photomicrographs above.

Clinical studies show nearly double the cavity reduction.

Colgate with this two fluoride concept was tested in a three year clinical study (8). The results—Colgate's two fluoride formula provided 27.0% reduction in new caries versus 13.8% for the single fluoride positive control* (DMFT).

Conclusion.

Colgate's two fluoride formula provides superior cavity protection to a single fluoride formula*: Only Today's Colgate has a two fluoride formula.

When you recommend Colgate you're recommending an innovative product—offering advanced and clinically tested cavity protection.

*Sodium monofluorophosphate (0.76%)

REFERENCES

1. Silverstone, L.M., Proc. Roy. Soc. Med., **65**, 906, 1972.
2. Koulourides, T., et al, Ann. N.Y. Acad. Sci., **131**, 771-775, 1965.
3. Von Der Fehr, F.R., et al, Caries Res., **4**, 131-148, 1970.
4. Levine, R.S., Brit. Dent. J., **138**, 249-253, 1975.
5. Slater, P.J., et al, Abstract No. 72, ORCA Conference, July 1982, Annapolis.
6. Hayes, H., et al, J. Dent. Res., **61**(4), 541, 1982.
7. Harvey, K., et al, J. Dent. Res., **61**, 243, 1982.
8. Hodge, H.C., et al, Brit. Dent. J., **148**, 201-204, 1980.



*Colgate Toothpaste contains sodium monofluorophosphate and sodium fluoride which are, in our opinion, effective decay preventive agents and are of significant value when used in a conscientiously applied program of oral hygiene and regular professional care. Canadian Dental Association

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ALL APEX LOCATORS ARE NOT NEOSONOS

The people who are trying to sell cheap imitation type units want you to believe that they are selling products with the same features as the NEOSONO-D at a lower price. Let's look at the facts. The principle behind all devices of this type is the same and requires measurement of electrical resistance in a root canal. But the electronic circuitry to measure the electrical resistance is vastly different. Cheap imitation devices are simply voltage dividers containing one integrated circuit, only half of which is used. Compare that to the sophisticated circuitry of the NEOSONO-D containing eleven integrated circuits. That costs a lot more to manufacture but consider your benefits with the NEOSONO-D.

YOU CAN ELIMINATE MEASUREMENT X-RAYS—REDUCE RADIATION EXPOSURE—SAVE TIME

FASTER

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COMPLETELY AUTOMATIC—Compared to imitation units that require electrical isolation of the patient and calibration of the unit every time you use it.

WOULD YOU LIKE TO MEASURE 3 ROOT CANALS IN AN UPPER MOLAR IN 10 SECONDS?

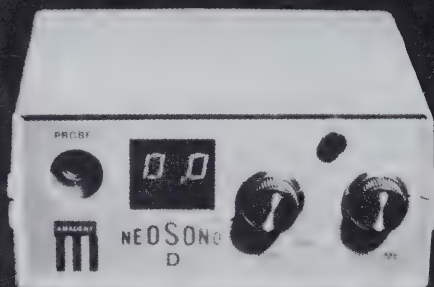
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Simply touch the metal portion of the reamers or files in the canal. The distance from the tip of the instrument to the apical foramen appears instantly on the screen in millimeters (within .1mm). **NOTHING IS ATTACHED TO YOUR OWN REAMER OR FILE.**

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Attach the probe wire to the reamer or file and move it into the canal. Stop at the desired distance as indicated by the digital readout, in millimeters, within .1mm. A warning light tells you if you go too far. An audible signal is available to allow measurement without looking at the NEOSONO. Compared to the imitation units which claim an accuracy of about .5mm and which do not tell you the reamer distance in millimeters. The NEOSONO-D allows you to set the reamer at the distance from the apex that you prefer.

**World's
Leading
Apex
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WOULD YOU LIKE TO MAKE ACCURATE MEASUREMENTS (within .1mm) WITHOUT WORRYING ABOUT OVERINSTRUMENTATION AND EMERGENCY CALLS IN THE NIGHT?

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Only the NEOSONO line of apex locators has circuitry that has been tested in numerous studies over an 11 year period. The accuracy approached 100%, even with pulp in the canal during measurement. Imitation units with less sophisticated circuitry have been unable to produce any comparable clinical studies. The Neosono can be used with a giromatic handpiece.

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Ask about our unique trade-in program on all apex locators. Neosono units priced from \$399. Mention this ad and receive a special discount.

Also ask about the new NEOTEST A — Automatic painless digital pulp tester one-tenth the size and weight of similar products. See you at the Canadian Dental Association Convention in British Columbia, Booth Number 97.

INFECTION CONTROL; AN ONGOING CONCERN

The time is at hand to re-examine the standards of infection control in our practices in the light of current knowledge of disease, epidemiology and micro-biology.

As practitioners, we have a responsibility to our patients, our auxiliary staff and ourselves to minimize risk of infection. Unfortunately, much of what has become enshrined procedure in our practices, has been supplanted by change in other health disciplines and it is to change that we must address ourselves, if we are to maintain a credible position on the health team.

"Control" of infection for patients and staff must be emphasized; the art of the possible; rather than "elimination" which is only a theoretical goal. The arena for infection control includes the host, the agent and the environment, the milieu through which the agent reaches the host. Fortunately the majority of oral infections are caused by endogenous organisms or so called "normal" flora, the resultant infections, being more a factor of host resistance than the pathogenicity of the organism.

A wide array of pathogenic micro-organisms are brought into a dental practice on any given day. The most likely organisms are the rhinovirus of the common cold, the adenoviruses and the enteroviruses of active nasopharyngitis, the group A streptococcus of acute tonsillitis and a host of other viruses and bacteria that can be carried in the oropharynx. Of significant concern however, are (a) herpes simplex virus (types I and II), (b) Hepatitis B virus, (c) *Treponema pallidum*, and (d) *Mycobacterium tuberculosis*. All of these can be present without obvious lesions in the mouth and may be transmitted directly through contact or via instrument vectors with the exception of *T. pallidum* where vectoring is rarely a factor.

To help us conceptualize a philosophy of infection control, the equation:

$$\text{Infectivity} = \frac{\text{Virulence of the micro-organism} \times \text{dosage}}{\text{Resistance of the host}}$$

should be examined.

In the implementation of a practical infection control program for the dental office, the above four factors should be understood and their inter-relationship manipulated to our advantage.

The authors recently conducted a questionnaire survey of 40 dental practices to determine to what extent our current infection control procedures deal effectively with our main areas of concern. Unfortunately, the results were not encouraging either in terms of patient or staff protection. It was realized that current inadequate methods have become standardized and widely accepted. In general surgical instruments are well handled, however, restorative instruments, often blood contaminated, are generally cold "sterilized" with solutions of various quarternary ammonium based agents which are totally ineffective. Alcohol, the most commonly used surface cleaning agent for hand-pieces, light switches, etc., is also ineffective. Gloves are rarely worn, as are other protective devices, such as glasses or masks. The inadequacies noted are the result of years of uncritical "follow the leader" procedures on our part. Blame must be shared by the teaching institutions where little is taught to undergraduates in this field and where innovative change is desperately slow to occur. The dental supply industry must also be faulted because many of the chemical agents sold and promoted, are known to be totally inadequate and have been rejected by other health disciplines years ago.

In spite of these apparent inadequacies, there is not a great deal of data that supports a patient to patient infection problem. Complacency is not warranted however, as a significant number of infections may simply be unattributed to dental contact due to a paucity of research into epidemiology of diseases related to dentistry.

Infection control requires the knowledge of all the elements in the spread of infection and of reducing risks by the most appropriate methods. The challenges are not insurmountable. The protection of patients and staff is worth a little time, care, consideration and money. Finally, we must realize that infection control requires constant review in the light of new developments and understanding.

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Consultant Epidemiologist
Ministry of Health
Province of British Columbia*

LA CONTAMINATION: UN SOUCI CONSTANT

Le temps est venu de réexaminer les normes touchant le contrôle de la contamination, à la lumière des connaissances actuelles sur les maladies, en épidémiologie et en bactériologie.

En tant que praticiens, nous sommes, envers nos patients, nos auxiliaires, les membres de notre personnel et nous-mêmes, responsables de réduire au minimum les risques de la contamination. Malheureusement, la plupart des procédures fortement établies dans nos cabinets ont été modifiées dans d'autres disciplines médicales. Nous devons donc étudier ces modifications si nous voulons conserver notre crédit parmi les professionnels de la santé.

Il convient d'insister pour éviter que patients et membres du personnel soient contaminés. Certes, supprimer totalement les risques est un objectif purement théorique. Les réduire le plus possible, toutefois, reste faisable. La lutte doit se livrer en tenant compte de l'agent, de l'hôte et de l'environnement: l'agent atteint l'hôte dans un milieu donné. Heureusement, la plupart des infections buccales sont causées par des organismes endogènes ou par ce que l'on appelle la flore "normale", les infections qui en résultent étant plutôt dues au pouvoir de résistance de l'hôte qu'au pouvoir pathogène de l'organisme.

Chaque jour, une grande variété de micro-organismes pathogènes envahissent les cabinets dentaires. Les organismes les plus communs sont les rhinovirus associés au rhume ordinaire, les adénovirus et les entérovirus des nasopharyngites actives, les streptococcus du groupe A de l'amygdalite aiguë ainsi que d'autres virus et bactéries innombrables qui peuvent se trouver dans l'arrière-gorge. Ceux dont il faut se méfier le plus, cependant, sont: a) le virus de l'herpès (types I et II), b) le virus de l'hépatite virale B, c) le treponema pallidum, d) le mycobactérium tuberculosis (bacille de Koch). Ils peuvent tous être présents sans lésions apparente dans la bouche et peuvent être transmis directement par contact ou par vecteur, sauf le treponema pallidum pour lequel la vection est rarement un facteur.

Pour mieux concevoir le contrôle de la contamination, il convient d'étudier l'équation suivante.

$$\text{contamination} = \frac{\text{virulence du micro-organisme} \times \text{quantité}}{\text{pouvoir de résistance de l'hôte}}$$

En mettant en vigueur un programme pour contrôler la contamination dans le cabinet dentaire, il faut comprendre les quatre facteurs de cette équation et en changer les rapports en sa faveur.

Nous avons récemment effectué un sondage dans 40

cabinets dentaires pour déterminer jusqu'à quel point les procédures actuelles pour contrôler la contamination sont efficaces en ce qui nous préoccupe principalement. Malheureusement, les résultats n'étaient guère encourageants pour la protection tant des patients que des membres du personnel. Nous nous sommes rendu compte que les méthodes actuelles, bien qu'elles soient inadéquates, ont été normalisées et sont communément acceptées. En général, les instruments chirurgicaux ne posent pas de problème. Toutefois, les instruments de restauration, souvent contaminés avec du sang, sont ordinairement "stérilisés" à froid avec des solutions de divers dérivés quaternaires à base d'ammonium qui sont tout à fait inefficaces. L'alcool qu'on utilise le plus souvent pour nettoyer les outils manuels, les commutateurs et ainsi de suite, est également inefficace. On porte rarement des gants ou d'autres appareils protecteurs comme des lunettes ou des masques. Les défauts que nous avons relevés sont le résultat de procédures répétées servilement et sans examen critique depuis de nombreuses années. La faute en est imputable partiellement aux maisons d'enseignement où les étudiants apprennent peu de choses à ce sujet et où les innovations se produisent avec une lenteur désespérante. Il faut blâmer encore l'industrie dentaire parce qu'elle fabrique et fait la promotion de produits chimiques qui sont reconnus pour être tout à fait inefficaces et qui, depuis longtemps, ont été rejetés par d'autres disciplines médicales.

Malgré ces erreurs évidentes, il y a peu de données qui étayaient le problème de la contamination d'un patient à l'autre. Toutefois, même si un nombre important d'infections ne peuvent être imputées à des contacts parce que les recherches en épidémiologie dentaires sont pour ainsi dire nulles, il ne faut pas que la complaisance constitue une justification.

Le contrôle de la contamination exige la connaissance de tous les éléments qui concourent à répandre une infection et demande qu'on en réduise les risques avec les méthodes les plus appropriées. Les défis ne sont pas insurmontables. La protection des patients et des membres de l'équipe dentaire vaut le peu de temps, d'attention, de considération et d'argent qu'elle exige. En fin de compte, nous devons nous rendre compte que le contrôle de la contamination demande une étude constante à la lumière des nouvelles connaissances acquises et des derniers progrès réalisés.

*W.H. Sussel, BA, DDS, FAGD, FADI
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The first time your patients hear about NutraSweet,* their natural inclination will be to want to run right out and buy some.

It's sweet like sugar, yet it sweetens with far fewer calories.

It's low calorie like saccharine, yet it has no bitter aftertaste.

But the sad fact is, your patients won't be able to buy a bag, box or bottle of NutraSweet anywhere.

NutraSweet is an ingredient.

They can only buy foods and beverages

that *contain* the sweetener NutraSweet.

The taste of sugar without the calories.

For the first time since calorie counting began, NutraSweet makes it possible for your patients to give up calories without compromising on one bit of taste.

This, in turn, means they may be more likely to stick to the diet you've recommended.

Foods made with NutraSweet taste like foods made with sugar. Yet, because NutraSweet is 200 times sweeter than sugar, much less is needed to do the job.

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It's a totally new kind of sweetener.

NutraSweet, the brand name for aspartame (APM), isn't like any sweetener you've ever known.

Some of the innovative products using NutraSweet

- Schweppes™ Sugar Free Ginger Ale
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- Sprite™ diet Coke™ Fresca™
- Pure Spring™ Ginger Ale, Sugar-Free Hires™ Root Beer
- Sugar-Free Pepsi Free™
- Diet Rite™ Cola
- Sugar-Free Shasta™
- Sugar-Free SunCrest™
- Weight Watchers™ Sugar-Free Soft Drinks
- McCormicks dietetic cookies
- Sweet 'N Low™ Drink Mixes
- Nutri/System™ 2000 Dessert and Drink Mixes

It's a sweet nutritive substance made of protein components like those found naturally in most foods. A dipeptide made of aspartic acid and phenylalanine[†] (as the methyl ester).

So, except for the low calories, it's not like saccharine at all.

It has no bitter aftertaste. And unlike saccharine, the body metabolizes NutraSweet as naturally as it does any protein.

This makes NutraSweet especially welcome news for persons with diabetes.[†]

In fact, the Canadian Diabetes Association has found NutraSweet to be acceptable as a sweetener for products that may be included in diabetic meal plans.

It's not just for adults.

The average family of four eats about 400 pounds of sugar a year, much of it in foods that make up a surprisingly large part of nearly every family's diet. Consider this as it applies to dental health alone.

NutraSweet is like protein. Unlike sugar—a carbohydrate—research has shown NutraSweet to be non-cariogenic.

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[†]Physicians counseling persons with phenylketonuria (PKU) or diabetes can write Searle Food Resources for additional information. **SEARLE** ©1983 G. D. Searle & Co.

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Only one dentifrice combines both a fluoride paste and a breath-freshening gel.

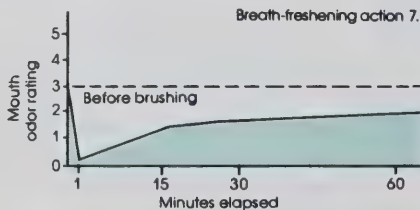
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	Test	7.89		
DFS	Control	8.27	15%	
	Test	7.02		
DFS	Control	7.36	28%	
	Test	5.31		
DFS	Control	3.18	20%	
	Test	2.54		
DFS	Control	4.94	44%	
	Test	2.77		
DFS	Control	10.20	26%	
	Test	7.57		
DFS	Control	8.27	17%	
	Test	6.85		

In a clinical study conducted by an independent laboratory, Aqua-fresh was proven effective in reducing oral malodors.

Scale:
0 = No odor.
1 = Faint odor.
2 = Slight malodor.
3 = Moderate malodor.
4 = Strong malodor.
5 = Very strong malodor.



For better patient compliance, your first recommendation should be double protection Aqua-fresh. A complete dentifrice with the double appeal of an anti-caries fluoride paste and a breath-freshening gel.



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**Double protection:
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REFERENCES: 1. Council on Dental Therapeutics: JADA 97:80, 1978. 2. Mainwaring P.J. Naylor MN: Caries Res 12:202-212, 1978. 3. Glass RL, Shiere FR: Caries Res 12:284-289, 1978. 4. Naylor MN, Glass RL: Caries Res 13:39-46, 1979. 5. Peterson JK: Caries Res 13:68-72, 1979. 6. Glass RL: J Clin Prev Dentistry 3:6-8, 1981. 7. Reference Data on File Beecham Canada Inc.

CDA Convention • VANCOUVER • Congrès de l'ADC

25-28 sept. 1983



CDA Convention highlights

The CDA Convention, taking place in Vancouver, September 25-28, will have something for everyone.

Prior to the more formal convention events, there is the annual Funn Run, this year taking place in Stanley Park, starting at 8 a.m., Sunday, September 25. All participants receive a complimentary T-shirt. An informal registration party, with the British Columbia gold rush days as its theme, including a buffet and cash bar, will take place Sunday night.

Monday evening's events get underway with a wine tasting cocktail hour and will be followed by tours of some of Vancouver's best restaurants. Menus and information will be available at a booth in the registration area Sunday so delegates can make the restaurant tour of their choice. The restaurant tours are open to CDA, CDHA and CDAA delegates and their spouses. The following list details the restaurants delegates may choose from for their tours.

Bridges: Seafood served in an elegant loft on Granville Island, overlooking a view of the boats, bridges, mountains and city lights.

English Bay Cafe: A celebration of Vancouver's most beautiful view — English Bay — specializing in superb Continental cuisine.

Il Giardino: The complete dining experience specializing in game and fowl in an elegant Florentine courtyard setting.

Koji: Experience a taste of Japan, featuring their Tatami rooms, sushi bar and a spectacular city view.

SPOUSES PROGRAM

Spouses of delegates, besides participating in the Funn Run and all the gala receptions and parties, have a distinct program.

Monday features lectures on "Getting It All Together", "Overuse Running Injuries" and an investment seminar. Following a luncheon on Granville Island, a craft display will be open in the Hotel Vancouver.

Tuesday offers a choice of Vancouver tours. Spouses may choose from tours of the Granville Island Public Market, mini-city tour, Museum of Anthropology or the Vancouver Public Aquarium.

Wednesday will feature a farewell breakfast in the Renaissance Suite, Hotel Vancouver.

Kettle of Fish: Committed to fresh seafood with daily market selections in an airy, relaxed, west coast atmosphere.

La Cantina: Wine and dine in Vancouver's favorite Italian seafood restaurant and let Umberto treat you to gourmet dining at its best.

Las Tapas: Partake in the ambiance of Spain in this unique bistro with airy courtyard and European style food.

Mark James: Casual elegance offering to tempt your palate with their

west coast specialties, in a three-tiered courtyard.

Peninsula: Gourmet dining in an authentic Chinese atmosphere with Cantonese cuisine at its finest.

The Tea House: Enjoy wonderful continental cuisine in a unique setting in Stanley Park providing a fabulous view of the harbour.

Vassilis Greek Taverna: Authentic Greek restaurant involving the best home cooked Greek food in town.

The social highlight of the CDA Convention will be the President's Gala, taking place Tuesday evening, September 27. Some of the entertainment remains a closely guarded secret, but there will be a gourmet meal provided, hosted by Captain George Vancouver, and entertainment by young instrumentalists, Chinese dancers and four bands. After dinner, there will be dancing to the Big Band sound.

In addition to restaurant tours, hygienists will be enjoying a cruise of Vancouver harbour, attending the President's luncheon and having a night at the Vancouver Aquarium. Delegates from the Dental Assistants' Association will also share in the restaurant tours, and Aquarium night, attend a luncheon Monday and a working breakfast Wednesday.

The convention in Vancouver is expected to draw a large number of delegates. The Journal has prepared this short "cope kit" for delegates.



A The Hyatt Regency
 B The Hotel Vancouver
 C The Four Seasons
 D The Holiday Inn - West Hastings
 E The Holiday Inn - West Broadway
 F The Bayshore
 G The Georgia

H The Inn at Denman Place
 J The Sandman Inn - Georgia St.
 K The Sandman Inn - Howe St.
 L The Miramar
 M The Sheraton - Plaza 500
 N The Century Plaza

CDA CONVENTION HOTELS

The following table lists the hotels in the downtown Vancouver area where CDA has booked

blocks of rooms for delegates. For exact locations, refer to the map.

HOTEL	LOCATION
The Hotel Vancouver *	Robson Street
The Hyatt Regency *	Burrard and Melville Streets
The Four Seasons	Howe Street
The Georgia	Georgia Street
The Bayshore	off Georgia Street
The Holiday Inn	West Hastings
The Holiday Inn	West Broadway
The Inn at Denman Place	Denman Street
The Sandman Inn	Howe Street
The Sandman Inn	Georgia Street
The Miramar	Between Thurlow and Butte Streets
The Century Plaza	Burrard Street
The Sheraton Plaza	West 12th Ave.

* CDA headquarters hotels

WHERE TO OBTAIN YOUR REGISTRATION CREDENTIALS

Your registration package, tickets and receipt may be picked up beginning at noon on Sunday, September 25 at the following locales:

- CDA** — Convention Level, third floor, *Hyatt Regency Vancouver* (Sunday to Wednesday inclusive).
- CDHA** — Plaza level, second floor, *Hyatt Regency Vancouver* (Sunday, September 25 only),
— *The Four Seasons Hotel* (Monday to Wednesday inclusive).
- CDA** — Plaza Level, second floor, *Hyatt Regency Vancouver* (Sunday, September 25 only),
— *The Hotel Georgia* (Monday to Wednesday inclusive).

Specialty group sessions

At the same time as the CDA Convention, CDA Specialty Sections and affiliated groups will be holding their own annual sessions.

The *Canadian Association of Orthodontists* will meet September 24-26 in the Four Seasons Hotel. The *Canadian Academy of Periodontology* will meet in The Bayshore, September 24-25.

Two meetings taking place September 25 at the Hotel Vancouver will be the *Association of Prosthodontists of Canada*, and the *Canadian Society*

of Public Health Dentists. The *International College of Dentists* will also be meeting that day, in the same hotel.

The *Canadian Association of Restorative Dentistry* will hold its annual meeting September 22-24, just before the CDA convention at both the Hyatt Regency and the Hotel Vancouver. Also meeting at that time, in the same hotels, will be the *Canadian Academy of Prosthodontists*.

Canadian Dental Service Plans Inc. (CDSPI) will meet September 25, in the Hyatt Regency.

VANCOUVER AT YOUR FINGERTIPS

Temperature: The average Vancouver temperature in September is 14 degrees Celsius.

Clothing: September is an autumn month in Vancouver and delegates should dress accordingly. Recommended clothing to pack for women includes a fall jacket and light wool dresses or suits. Men and women should have raincoats.

Restaurants: Many different types of food are available in Vancouver, including a great variety of seafood. Some of the cuisine delegates can sample (aside from restaurant tours) include Greek, Japanese, Chinese, Ukrainian, Italian, Indonesian, Vietnamese, Hungarian, French, German and African.

MESSAGE CENTRE

If the personnel in your office or your family wish to transmit an urgent message to you when you are attending the CDA Convention in Vancouver, an emergency message centre will be provided for that purpose.

The telephone numbers to leave at home or at your practice are these:

(604) 684-5875

(604) 684-5876

There will be message centre booths located at each of the major convention hotels in Vancouver, the Hotel Vancouver and the Hyatt Regency.

Cover Story

This month's cover depicts the 1983 CDA Convention City — Vancouver.

The Journal thanks the Greater Vancouver Visitors and Convention Bureau in granting us the use of this panoramic photograph of the City, its waterfront and towering backdrop of Coastal Range mountains.

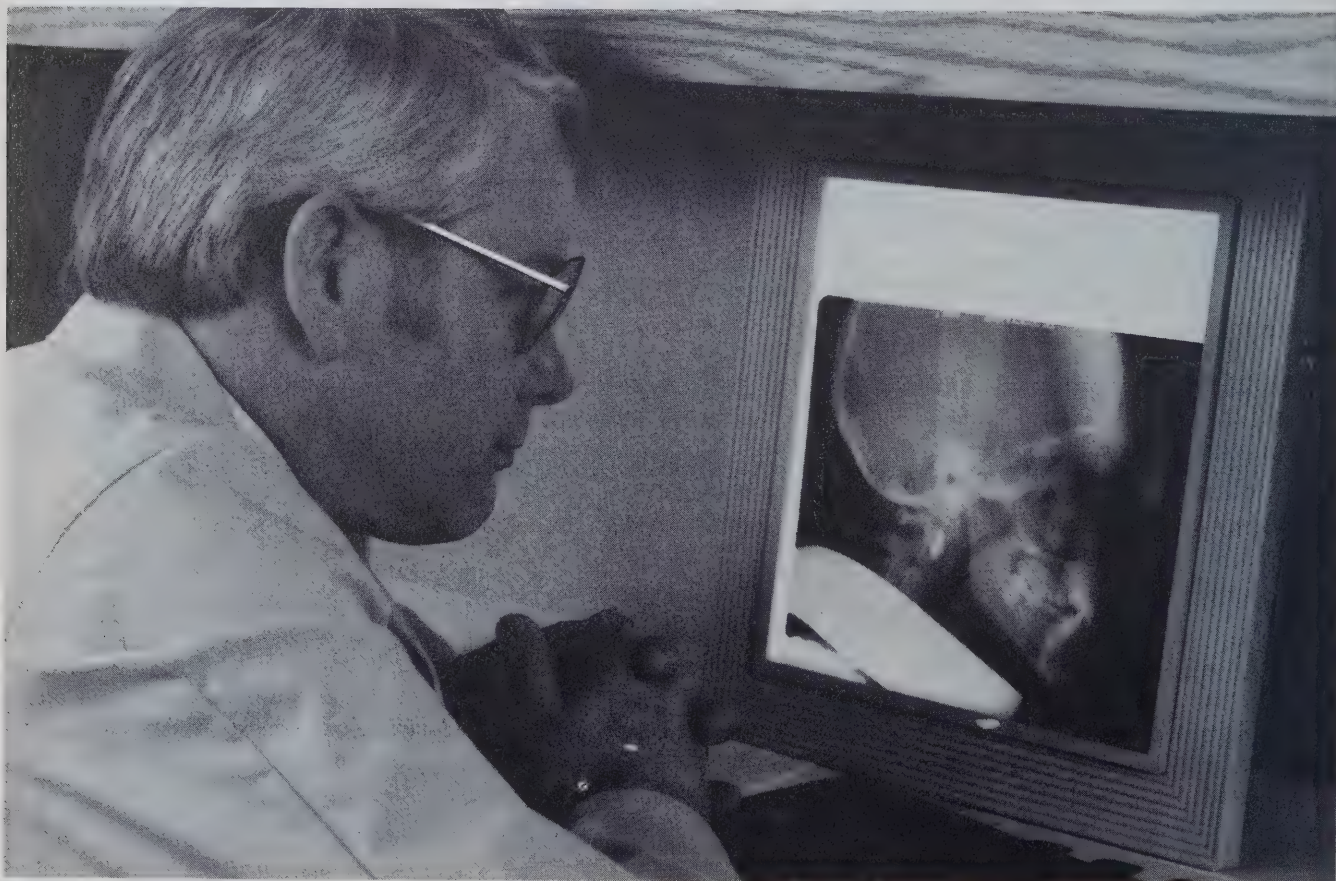
Less exposure and less cost with new Kodak rare earth extraoral products.

Rare earth imaging products—Kodak Lanex screens and Kodak ortho films—have already had major impact on medical radiography. Now they are available to reduce exposure and cost in extraoral dental imaging.

Exposure to patient and staff is reduced four to six times for both panoramic and cephalometric radiography—and the film costs less. Yet the image quality

is comparable with slower combinations. A Kodak Lanex regular screen with Kodak ortho G film gives superb contrast for panoramic work, and the same screen with Kodak ortho L film yields the extended latitude required for soft-tissue imaging in cephalometric radiography. The same combinations are available for special cassettes for use in TMJ radiography.

For details, write for the new Kodak dental x-ray products catalog, Kodak Canada Inc. Health Sciences Markets, 3500 Eglinton Avenue W. Toronto, Ontario, M6M 1V3





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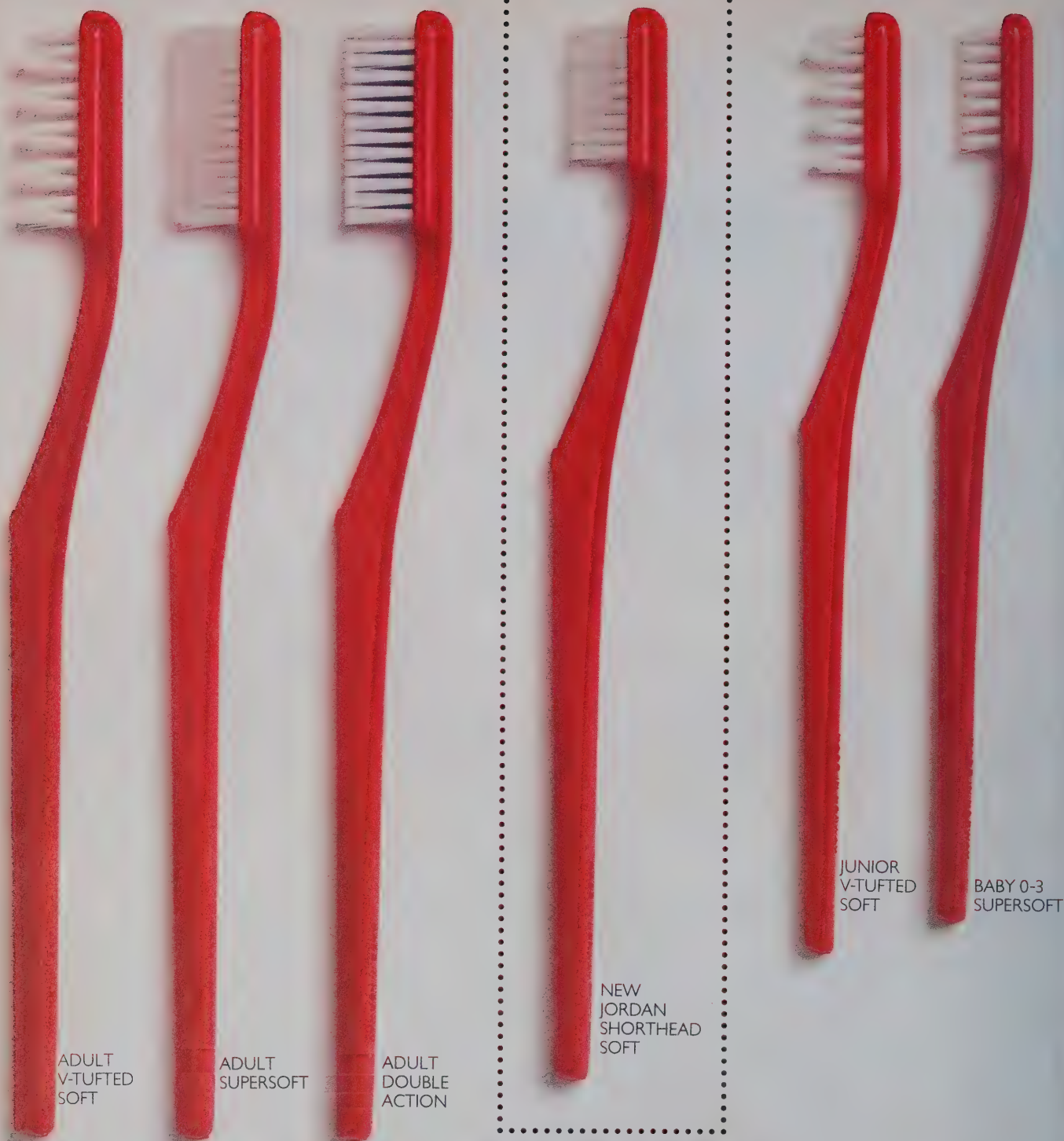
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ADDRESS _____

CITY _____ PROVINCE _____

COUNTRY CANADA POSTAL CODE _____

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ACTION

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JORDAN
SHORTHEAD
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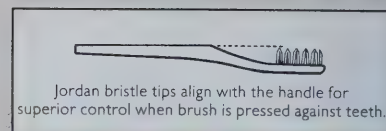
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TRUBYTE

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SCIENTIFIC PROGRAM — CDA CONVENTION *

DATE	HOURS	TOPIC	SPEAKER	FORMAT	LOCATION	AUDIENCE
Sept. 26	9-12 am	Fixed Prosthodontics	Ray Contino	Lecture	Pacific Ballroom	DDS and Tech. only
Sept. 26	9-12 am	Occlusion	Norm Ferguson	Lecture	British Room	DDS, Tech. only
Sept. 26	9-12 am	Forensic Dentistry		Panel	Board Room	Closed
Sept. 26	9-12 am	Infection Control		Panel	Vanc. Island Room	Open
Sept. 26	10:45-12 am	Grieve Memorial Lecture	Allan Lowe	Lecture	Waddington Room	Open
Sept. 26	9-12 am	Periodontal Diseases	Royal College of Dentists of Canada	Symposium	Social Suite	Open
Sept. 26	2-4:30 pm	Fixed Prosthodontics	Ray Contino	Lecture	Pacific Ballroom	DDS & Tech only
Sept. 26	2-4:30 pm	Full Dentures	Charles Bolender	Lecture	British Room	DDS & Tech. only
Sept. 26	2-4:30 pm	Endodontics		Panel	Boardroom	Open
Sept. 26	2-4:30 pm	Operative Dentistry		Panel	Waddington Room	Closed
Sept. 26	2-4:30 pm	Oral Lesions	Bob Myall	Lecture	Columbia Room	Open
Sept. 26	2-5 pm	Periodontal Disease	RCDC	Symposium	Social Suite	Open
Sept. 27	9-12 am	Fit or Fat	Covert Bailey	Lecture	Pacific Ballroom	Open
Sept. 27	9-12 am	Radiology	Bill Collett	Lecture	Vanc. Island Room	Closed
Sept. 27	9-11:30 am	Restorative Dentistry	Dick Tucker	Lecture	British Room	DDS & Tech. only
Sept. 27	9-12 am	Future of Dentistry		Panel	Waddington Room	Open
Sept. 27	9-12 am	Periodontics		Panel	Social Suite	Open
Sept. 27	9-12 am	Alcohol and Drug Abuse	M.L. Christianson	Lecture	Room 227	Open
Sept. 27	2:30-5 pm	Fit or Fat	Covert Bailey	Lecture	Pacific Ballroom	Open
Sept. 27	2:30-5 pm	Occlusion		Panel	Vanc. Island Room	Closed
Sept. 27	2:30-5 pm	Cancer Control	Clifford Freshe	Panel	Boardroom	Open
Sept. 27	2:30-5 pm	Intra-Oral Photography		Lecture	Waddington Room	Open

SCIENTIFIC PROGRAM (Continued)

Sept. 27	2:30-5 pm	Practice Management	Bob Johnson	Teaching Conference	Social Suite	Open
Sept. 27	2:30-5 pm	Table Clinics		Clinics	2nd Floor	Open
Sept. 28	9-12 am	Periodontics		Lecture	British Room	Open
Sept. 28	9-12 am	Fixed Prosthodontics		Panel	Vanc. Island Room	DDS & Tech. only
Sept. 28	9-12 am	Oral Surgery		Panel	Boardroom	Open
Sept. 28	9-12 am	Removable Prosthodontics	Warren Mitchell and Associates	Panel	Waddington Room	DDS & Tech. only
Sept. 28	9-12 am	Current Tax Topics		Lecture	Columbia Room	Open
Sept. 28	9-12 am	Practice Management		Teaching Conference	Social Suite	Open
Sept. 28	9-12 am	Table Clinics		Clinics	2nd Floor	Open
Sept. 28	2-4:30 pm	Practice Management		Teaching Conference	Social Suite	Closed

* All sessions held in the Hotel Vancouver

PROGRAM — CANADIAN DENTAL HYGIENISTS' ASSOCIATION *

DATE	TITLE	SPEAKER	FORMAT
Sept. 26	"Dental Asepsis: A Public Trust with a Moral Responsibility"	Dr. R.J. Whitacre	Lecture
Sept. 26	"Integrating Dental Hygiene With Family Living"	Dr. Heather Hagerman	Lecture
Sept. 27	"Update on Fluoride Therapy"	Dr. A.R. Volpe	Lecture
Sept. 27	"Clothing in Harmony with Your Surroundings".	Ms. Edita Whipple	Lecture
Sept. 27	"Pre- and Post-Natal Fitness"	Ms. Sue Hills	Lecture
Sept. 27	"Dental Radiology Update: Principles, Techniques and Radiation Hygiene".	Dr. W. Collett	Lecture
Sept. 27	"Update on Oral Hygiene Aids and Techniques".	Mrs. Karen Sipko	Lecture
Sept. 28	"The Office Environment: Are We Killing or Curing?"	Drs. Ben Wong and Jack McKeen	One Day Course

* All sessions held at the Four Seasons Hotel

SCIENTIFIC PROGRAM — CANADIAN DENTAL ASSISTANTS ASSOCIATION *

DATE	TITLE	SPEAKER	FORMAT
Sept. 26	"Recognizing and Understanding Abnormalities of the Teeth and Jaws"	Dr. R. Myall	Lecture
Sept. 26	"If It's Going to Be, It's Up To Me."	Marjorie Dimitri and Claudia Anderson	Lecture
Sept. 27	"A New Look at People Handling Skills For the Successful Dental Professional"	Gary Little and Jack Allen	Lecture
Sept. 27	"Dental Radiology Update: Principles, Techniques and Radiation."	Dr. W. Collett	Lecture
Sept. 28	"Career Planning Your Work Life Today: A Balancing Act"	Diana Cawood	Lecture

* All CDAA Scientific sessions held in the Hotel Georgia

HOTEL RESERVATION REQUEST FORM*

Name _____
(please print or type)

Address _____

City

Province

Postal Code

Telephone Number _____

Please check appropriate designation:

Dentist _____ Please indicate specialty _____ Technician _____

Hygienist _____ Student _____

Assistant _____ Exhibitor _____

Other (please specify) _____

Name(s), other occupant, if applicable _____

Choice of hotels 1. _____

(Hotels will confirm 2. _____

reservations) _____

Type of Room Single _____ Double _____ Twin _____ Triple _____ Suite _____

Approximate Rate \$ _____ (3rd person & suite rates, on request)

Arrival Date and Time _____; Departure Date _____

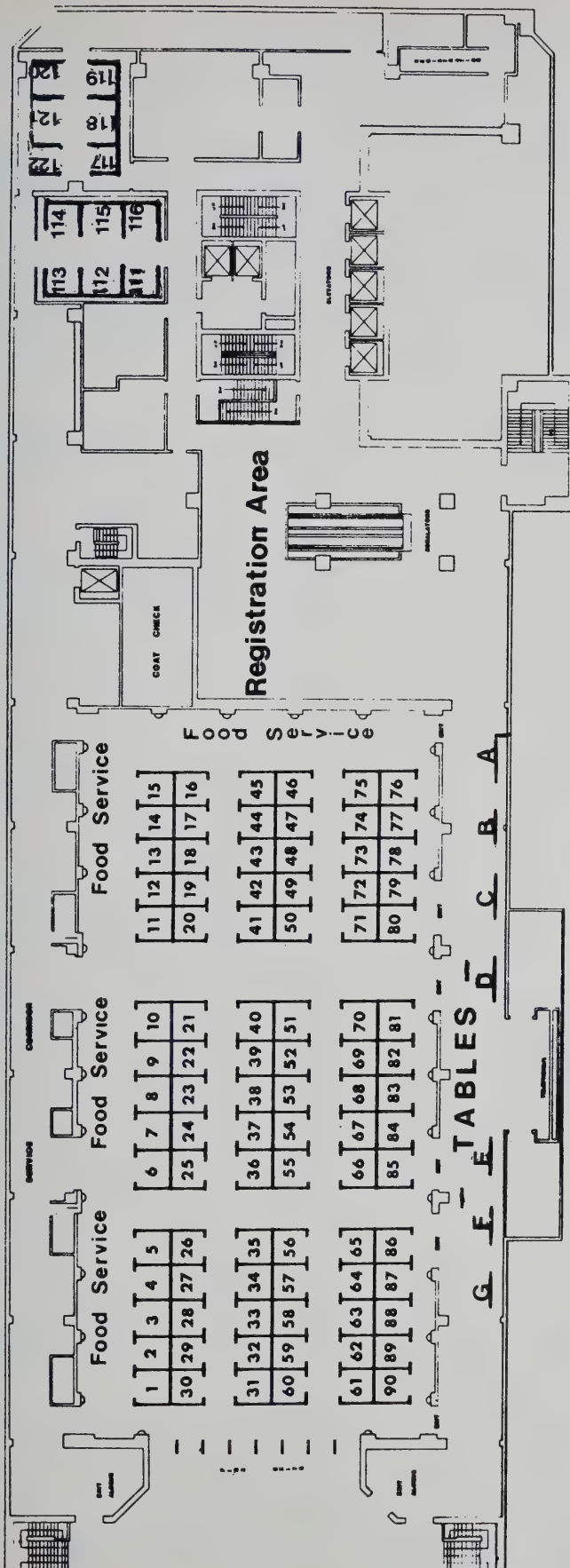
Guaranteed yes _____ no _____

*Please duplicate and complete this form if more than one room reservation is required.

Send to:

The 1983 CDA Vancouver Convention,
c/o Mrs. Anna Campbell,
Greater Vancouver Convention and Visitors' Bureau,
1625 - 1055 W. Georgia St., P.O. Box 11142, Royal Centre,
Vancouver, B.C. V6E 4C8

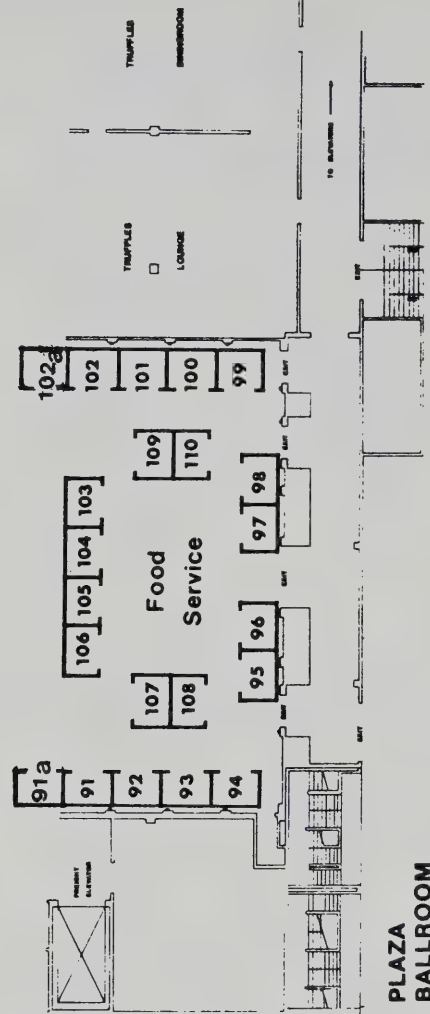
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*CDA Convention exhibitors

COMPANY NAME	BOOTH NUMBER	PRODUCTS
A-Dec Inc.	6-7	Priority chairs and stools, preference cabinetry, dental units, handpieces, handpiece controls, vacuum accessories.
American Medical and Dental Corp.	97	Neosono-electronic apex locator, Neo-test pulp tester; Adalite-fiber optics; Mada Jet — needle free injection
Ando Laboratories Ltd.	116	Dental prostheses
Ash Temple Ltd.	4-5	Complete line of equipment, sundries and service
Astra Pharmaceuticals Canada Ltd.	47	Local anaesthetics "Xylocaine"® and "Citanest"® / Citanest® Forte". Self-aspirating dental syringe dental topicals ointment and liquid "Xylocaine"®.
Aurum Ceramic Dental Labs Ltd.	21	Crown and Bridge Dental Lab.
Beecham Canada Inc.	104	Aqua-fresh
Belle de Ste. Claire	95	Products for dental labs. Crown and bridge ceramics. Continuous demonstrations at exhibit.
Belmont Takara Co. of Canada Ltd.	73-74	Belmont Axis-90 Chair Combex- 907 X-ray unit, operating lights and units
Benson Medical Products Ltd.	56	Nitrous oxide sedation system "The Innovator". New "Security System" for the dental office.
Beutlich Inc.	57	Hurricane topical anaesthetics, in liquid, gel and aerosol spray.
Block Drug Co. of Canada	82-83	Sensodyne, Py-Co-Pay, Mynol
John O. Butler Co.	69-70	Preventive dentistry products, dental floss, toothbrushes.
C.D.S.P.I.	59	Canadian Dentists' Insurance Program to meet the needs of the Profession
Canadian Dental Supply Ltd.	14,15	Dental sundries. Impression materials, filling materials, instruments, and visible cure lights.
Central Dental Supply Co. Ltd.	18	Full Service dental dealer

CONVENTION EXHIBITORS (continued)

Co-Dental Marketing Inc.	99	Stabilok, cc-cord, Odus Pella crowns, Rotomatic endo supplies, Sci-dent
Colgate Palmolive Canada	86-87	Colgate tooth paste, child & adult dental kits, professional literature
Cook-Waite Laboratories	Table C	Local anaesthetics and dental implants
Cooper Laboratories Ltd.	106	Oral B tooth brushes, dental floss, Fluorinse Flozenges (Fluoride lozenges) Amason, Oral-B Permite Amalgam.
Degussa Canada Ltd.	16-17	Precious metal alloys, Dental laboratory equipment and accessories, Luxor metal ceramic
Denco, Division of Sybron Canada Ltd.	28,29,30	Full service supplier
Den-Mat Corp.	2	Information on uses and application of all composite materials used in dentistry. Cosmetic dentistry and its importance today.
Dentawest Dental Supply Ltd.	90	Spaceline — J Morita Corp. Apex-locators Hydrocolloid/alginate impression materials. "Noise-Free" compressors.
Dental Depot Canada Ltd. (Healthco)	88-89	Dental supplies and equipment
Den-Tal-Ez/Syntex Dental Products Inc.	93	Chairs, stools, lights, units, cabinetry, x-ray equipment, compressors, vacuum pumps
Dentech Products Limited	35,92	High quality dental delivery systems
Dentsply Canada Limited	51, 52, 53, 54, 55	Full line dental prosthetic materials. Dental sundry merchandise materials.
Dow Pharmaceuticals	12	How Cepacol Mint with Fluoride Denquel and Benzodent can be made available for use in a practice
Duro Test Electric	63	Demonstration of patented full spectrum Vita-Lite fluorescent for dental offices
Ellman International	Table F	Surgical mini-clinics, new porcelain repair materials, new apex locator demonstration, complete splinting techniques demonstrations.

CONVENTION EXHIBITORS (continued)

Encyclopedia Britannica Pub. Ltd.	19	Special offer, including Lifetime Education Program
Express Dental Supplies	117	General sundries, small equipment, hand instruments
Fine Arts Dental Laboratories Ltd.	81	Dental lab provides personalized prosthetic services to dentists of Western Canada.
Germiphene Co. Ltd.	98	Dental pharmaceutical specialties and prevention products
Hoechst Canada Inc., Pharmaceutical Division	13	Ultracaine® — New compound for local anaesthesia
Frank W. Horner Inc.	60	Jordan tooth brushes, Amersol and Atasol analgesics, Graval analgesics
Hu-Friedy Manufacturing Co.	39	Manufacturers of hand dental instruments, including a complete selection of instruments for periodontia, endodontics, oral surgery, dental hygiene, and instruments for operative procedures in general dentistry
The Hygenic Corporation	75	Endodontic Supplies, specialty waxes and acrylics, denture resins and base-plate waxes.
Inter-Dent International Dental Supply of Canada	10	Dental supplies
Internat Services Inc. (Phasealloy)	76-77-78	Dental filling materials, curing lights and amalgamators, dispensers
Inter-Unitek Canada Ltd.	41-42, 49-50	Veritel light cure composite Duralin-gual "No Mix" Opacious Maryland bridge cement, Vita porcelain powders
Ivoclar-Vivadent Canada Inc.	58	Heliomat/Heliosit light curing systems SR-Vivodent — SR-Orthotyp- teeth SR-Ivocab denture system.
Jelenko Dental Products	3	Dental golds, merchandise, equipment and specialties
Johnson & Johnson Inc. (Dental Division)	36-37	Dispersalloy* D.P.A., Dispos-a-Cap II*, MIRADAPT* dental restorative, Johnson and Johnson absorbent points, Cidex Formula 7* sterilizing solution.

CONVENTION EXHIBITORS (continued)

Johnson & Johnson Inc. (Health Products)	108	Health products
Kerr Canada	68	Filling, impression and endodontic materials.
Kodak Canada	27	Products for oral radiography, film processing, rare earth products
Lasco Diamond Products	113	Diamond dental and lab burs
Lindberg and Homburger Dental Labs Ltd.	Table B	Laboratory products; precision attachments; Bew model-making technique
Magna Systems Ltd.	66-67	Newest and most advanced mini computer system specifically designed by dentists for dentists
Mai Canada Ltd.	91A	An automated dental management system
Mardan Business Systems Ltd.	8	One-Write accounting systems proven computer systems for dental offices. Filing systems.
Medi-Dent Service	71-72	Leasing
Merck-Frosst	110	Dolobid-long acting non-narcotic analgesic Heptavax-B vaccine against Hepatitis B
Micro/Sys 80 Dental Computer Systems	105	In office management system
Miltex Instrument Co.	111	Miltex dental instruments, laboratory instruments amalgam carriers, endodontic instruments.
C.V. Mosby Company	Table D	Wide variety of dental text books, for dentists and students.
Nephron Corporation — Dental Division	26	Diamond and carbide burs, hand instruments, hand pieces, hygiene items lab carbides, diamonds, control units
Novocol/Buffalo Dental Canada	62	Dental local anaesthetics, Octotaine Ultrafine impression system, dental and laboratory instruments and equipment.
Ortho Organizers	22	Ortho supply
O'Ryan Industries	114	Manufacturer of Omega 110 fibre optic light curing system and Omega 1000R multi-purpose fibreoptic system
Osta International	84	Osteol teaching aids, demonstration skulls, charts and models for dentists.

CONVENTION EXHIBITORS (continued)

Pelton and Crane	43-44	Dental units, chairs, lights, sterilizers, stools, compressors
Philips Electronics Ltd.	48	OrthOralix X-ray diagnostic systems Philips 810 film processor, Philips 410 automatic processor
Premier Dental (Canada) Inc.	24	Cure-Thru Matrix, "Light Touch" instruments, Permalloy, strip crowns, Two-striper diamonds, triple trays, Hemodent.
Procter and Gamble	11,20	Crest. Professional dental health kits, patient education materials, professional monographs on caries process, mechanisms of fluoride action
Prodent International Traders Ltd.	85	Hydrocolloid and alginate combined impression materials.
Professional Economic Consultants Ltd.	38	Overall financial planning service for dentists.
Professional Pharmaceutical Corp.	40	Neutrogena skin care products Norwegian formula — dry hand cream.
Rathmann and St. John Orthodontic Lab	25	Orthodontic appliances
Ritter — Midwest	31,32,33	Chairs, stools, lights, X-rays, handpieces, burs, ultrasonic scaler, fibreoptic systems.
RJK and Associates	118	Designing developing and marketing of computerized dental practice management systems
Rocky Mountain Orthodontics Canada Limited	100	Orthodontic instrumentation and appliances.
Roi Management Inc.	109	Practice: Appraisals, sales consulting
W.B. Saunders Company Canada Limited	Table E	Books for the dental profession
Shofu Dental Corporation	Table A	Abrasives, silicone polishing systems, Indiloy, Robot diamonds, Hy-Bond polycarboxylate and zinc phosphate cements
Siemens Electric Limited	101-102	Siemens SL 3S chair; Heliodont HDT 3005; Orthopantomograph 5; rare earth system.
Sinclair Dental Co. Ltd.	79-80	Complete personalized full service supplier

CONVENTION EXHIBITORS (continued)

Spacemaintainers Laboratories Canada	23	Ortho dental lab
Star Dental/Synter Dental Products Inc.	107	Hand-pieces, fiberoptic, endodontic instruments, alloy, sonic scaler, rotary cutting instruments.
Suter Dental Manufacturing Co.	61	Dental instruments, operative and Perio. Dental sharpener and sharpening stones.
Sydney Development Corporation	103	Complete computer systems for dental office management
Teledyne Water Pik Canada	64-65	Hygiene appliances — the Shower Massage and Instapure water filter
3-M Canada Inc.	34	"Scotchbond" dental adhesive, "P-10" resin bonded ceramic posterior material, "Silux", "Silar," and "Concise" composites, "Ion" crowns.
Trans-Canada Dental Limited	115	Dental consumables and instruments
Tri-Hawk	91	High-quality rotative, dental instruments.
W-M Dental Supply Ltd.	1	CDI executive chair, CDI executive stool, CDI executive delivery system.
Warner Lambert Canada Inc.	45-46	Listermint with fluoride mouthwash and Trident sugarless gums and mints
Westan Distributors	9	Dental Laboratory and orthodontic supplies
Whaledent International	Table G	Manufacturers of proprietary products for restorative dentistry.
S.S. White Dental Division	96	Tytin and cluster alloy, carbide burs and instruments, advanced X-ray Systems
Williams Gold Refining Co.	102A	Canadian precious metal refiner and casting alloy manufacturing
Wright Dental Canada Ltd.	94	Full line of microfilled composites, small particle composites, Translux curing light. New concept in restorative and composite dentistry.

Additional Exhibitors

At press time three additional exhibitors were confirmed as per booth numbers listed.

Modular Custom Cabinets	119
Best's Professional Supply	112
Zest Anchors Inc.	120

*The above chart indicates positions confirmed by exhibitors until press time. There was the possibility at that time that some changes might occur after the Journal was printed.

Supplier outlines benefits of visiting technical exhibits at dental convention

Why should the dental profession be encouraged to visit the technical exhibits at the Canadian Dental Association Convention in Vancouver?

Probably the best answers ever given to that question were those provided by an executive of a prominent international dental supply firm, William H. Campbell, Director of Marketing for Pelton & Crane, of Charlotte, North Carolina.

Mr. Campbell observed that "conventions provide an opportunity for the three main members of the dental community — the manufacturer, the dealer and the dentist — to get a complete exposure to each others' concerns. Without this opportunity, the degree of cooperation between the three groups would be significantly reduced. By the same token, shared perspectives can be established and consequently, a much more satisfactory and productive relationship can be obtained.

"Of course the principle reason for attending the technical exhibits is to see new products. The technical exhibits provide both the dealer and dentist an opportunity to see current thinking of the manufacturers with respect to new products and inventions. This helps both satisfy current needs and wants of the local dental community.

"The technical exhibits also provide the dental community with an opportunity to compare and contrast existing products. This convenient arrangement allows both practitioners and members of the dealer community to analyze comparative equipment. It is uncommon to see all products being carried by one dealer house. Consequently, this provides an opportunity for members of the dental community to broaden their horizons."

The nature of the exhibits them-

selves is an important point, Mr. Campbell states.

"Often we find that the dentist is very unaware of the actual design intention, mechanical workings, or the specific procedures which stimulate the development of a new product or technique. The technical exhibits provide an opportunity to explain these important ingredients in the development of a new system.

Special requirements

"Another special consideration is the opportunity to explore custom applications and special requirements. One often finds that a member of the profession has a particular requirement which is not satisfied by any piece of equipment. Consequently, special refinement or development must be executed to satisfy the need. The technical exhibits offer an opportunity for the community to explore the custom alternatives and developments in that solution. It is significant at times like this to have the manufacturers represented in force, since the products in question must be analyzed and modified to some degree, and therefore, warranty and other considerations must be examined very closely.

"We are also aware of the importance of the person-to-person contact which occurs at our technical exhibits. This opportunity enables the dentist, the dealer and the manufacturer to meet on a face-to-face basis, get to know each other's concerns, frame of reference and their requirements.

It is due to this kind of discussion that solutions and high quality treatment equipment help to elevate the overall quality of oral health care in our country today.

"Another important ingredient that I feel is significant is the opportunity for the manufacturers to pass on special maintenance tips, servicing tips, or procedural tips to the other members of the community. As a manufacturer's representative covers his territory every day, he or she develops a wealth of information which is never placed in the "use and care" or "installation and adjustment instructions." This information normally is supplied in these special face-to-face opportunities which can significantly increase the user satisfaction and longevity of the products.

"The technical exhibits also present a very convenient place for the members of the dental manufacturers and dental dealers to arrange for special office visits to the profession. It has been my experience in the past that problem-solving at dental conventions can be quickly and accurately achieved because of the nature of the representation and opportunity to discuss problems on all three levels of operations.

Service capabilities

"The technical exhibits also provide an opportunity for the manufacturers to present the full service capabilities of their company. In many circumstances, the full service capabilities are not presented or displayed in the dealer environment because of limitations in space and time. This opportunity provides the manufacturer with the time and space to display the comprehensive capabilities of the company.

"We have also found that the technical exhibits provide an excellent opportunity for clinical presentation tie-ins. We have often found that special clinical presentations will be examining or presenting a particular technique which can be accomplished

with a particular piece of equipment. Of course, the clinical presentation is talking about technique and very little information is given on the equipment itself. After the presentation, members of the dental community have the opportunity of moving on to the technical exhibit floor to analyze the specific pieces of equipment being mentioned in clinical settings.

"The opportunity for staff training

is also facilitated during the technical exhibits. Exposing the dental staff to particular equipment provides the manufacturer and the dental dealer with the opportunity to explain both technique and operation, so that the needs and wants of the dental team are satisfied."

"Last but not least," Mr. Campbell notes, "I feel that the technical exhibits provide an opportunity for the

community to develop a camaraderie and shared experience. It is an opportunity to develop and maintain the strong social and professional relationships that give our industry vigor and excitement. These relationships are often maintained through these exposures and I feel they contribute immensely to the overall satisfaction we, as members of the dental community, have in our business."

Dr. Christopher McCulloch named CDRF Award recipient



Dr. Christopher A. McCulloch

Christopher Allan McCulloch, BSc, DDS, PhD, FRCD(C), of Islington (Toronto) Ontario, will receive the 1983 Canadian Dental Research Fund (CDRF) Award.

Dr. McCulloch, who conducted his research and made his submission from the Faculty of Dentistry, University of Toronto, worked under the supervision of Drs. A.H. Melcher and Donald M. Brunette.

He was successful over four other candidates for his submission: "Cell Migration in the Periodontal Ligament of Mice." Dr. McCulloch examined the kinetics and origins of progenitor cells.

Dr. McCulloch, who was born in Winnipeg, is a specialist in Periodontics and has a specialty practice in Hamilton, Ont.

He is presently continuing to do

post-doctoral research in the Department of Anatomy at the University of Toronto medical school. He received his PhD degree from that university in 1982 for biological research.

His present goal is to get funding for a five year research project studying the pathogenesis of Periodontics. He has applied for a Medical Research Council scholarship.

Dr. McCulloch will receive the \$1,000 Award and plaque during the

CDA Convention in Vancouver, Sept. 25-28.

The Institutional Award, for the university dental faculty where the research of the award-winning candidate was conducted, will be presented to the University of Toronto dental faculty Dean, Dr. Richard Ten Cate, or his representative, at the same time.

The CDRF Award is presented annually to stimulate dental research.

National Dental Health Month poster winners



This year's National Dental Health Month Poster Contest judges are shown with the winning national entries. Left to right, Jim McPherson, of Den-Art Gallery Limited holds the entry of Cathy Martens, Deloraine Elementary, Deloraine, Manitoba, in the Grade 5 to 7 category. Arden Baker, owner, Arden Baker Graphic Arts, Limited, holds Kerri Farion's poster, winner in the Grades 2 to 4 category. Kerri is from Vegreville, Alberta. Hubert Drouin, Executive Director of CDA, holds the winner in the Kindergarten to Grade 1 category. Ian Whetter of Deloraine Elementary, in Deloraine Manitoba was the winner in that category.

Three distinguished members of the profession will be honored by the CDA at Convention



Dr. William Miller

Dr. Douglas J. Yeo, Associate Dean, Faculty of Dentistry University of British Columbia, Dr. William Miller of Vancouver, CDA President in 1961-2 and Dr. John Frederick Reid, also of Vancouver, who was CDA President in 1974-5, will be honored for their outstanding contributions to dentistry in Canada at the CDA Convention in Vancouver, Sept. 25-28.

Honorary Memberships will be conferred upon Drs. Miller and Reid.

Dr. Yeo will receive the 1983 Distinguished Service Award.

Dr. William Miller

Dr. Miller now a sprightly 83 years young, provided inspiration and leadership to Canadian dentistry in many capacities in the Canadian Dental Association and his home province of British Columbia.

Born in Australia, June 27, 1900, Dr. Miller later came to North America and received his DMD degree from the University of Oregon in 1926.

He was attracted to Canada, and by 1933, had achieved the distinction of becoming President of the Vancouver and District Dental Society. He was later named a life member.

His leadership qualities and concern for the welfare of his colleagues gained him the presidency of the Col-



Dr. John Frederick Reid

lege of Dental Surgeons of British-Columbia in the 1955-57 term.

Dr. Miller was named a Fellow of the International College of Dentists in 1949 and he became a member of the National Dental Examining Board of Canada in 1954.

The Canadian Dental Association benefitted from Dr. Miller's service as a member of the Board of Governors from 1956 to 1963, a member of the Executive Committee for the same period, as President in 1961-62 and Past President, 1962-63.

Dr. Miller was general chairman of the CDA Golden Jubilee Convention held in Vancouver in June of 1952.

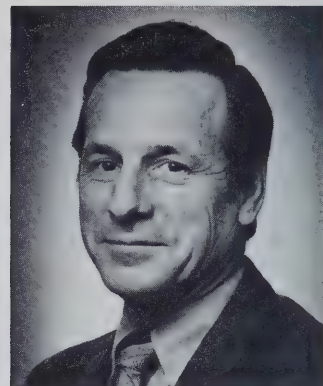
In October, 1981, he retired after 54 years in his practice in downtown Vancouver.

In spite of his active involvement in dental organizations over the years, Dr. Miller has found time for community service. An active Anglican, Dr. Miller has been a lay reader and has been described as a "sometime preacher."

He has been a member of the Canadian Club for 30 years.

Dr. John Frederick Reid

Dr. Reid is a genuine Vancouver native. He was born there on May 29, 1919 and received his early education in that city.



Dr. Douglas Yeo

He graduated from the Western College of Pharmacy in 1940.

The urge to serve his country during the Second World War was strong enough to lure him away from "Super-Natural B.C." in 1940. Dr. Reid served with the Royal Canadian Dental Corps until 1945.

Following demobilization, he entered McGill University in Montreal and was graduated with his DDS degree in 1950.

Dr. Reid returned to Vancouver to set up a practice and soon began to provide leadership in the College of Dental Surgeons of British-Columbia. He became a director and was named to the executive committee in 1962. From 1966 to 1968, he was chairman of the dental auxiliaries committee (preparatory to the creation of the status of Certified Dental Assistant in B.C.)

He served as President of the B.C. College in 1968-69.

During the same period, Dr. Reid was a member of the federal government's Wells Commission on Dental Auxiliaries.

His service with the Canadian Dental Association began with his appointment as a member of the Dental Services Committee (now the Council on Health Care), 1968-69. He served on the Board of Governors from 1968 to 1976, and on the Execu-

tive Committee from 1972 to 1976.

Dr. Reid was President of the CDA in the 1974-75 term.

In 1972, he became a Fellow of the International College of Dentists and in 1980, was named a member of the Board of Trustees, Canadian Fund for Dental Education.

Dr. Reid has found time to also give service to his community. He was District Governor for Gyro International in 1970-71.

He also manages to play a bit of golf, do some gardening and dabble in photography.

Dr. Douglas Yeo

Dr. Yeo, Associate Dean and Head of the Department of Preventive and Community Dentistry at UBC, was born in Regina, Saskatchewan in 1924.

He graduated from the Faculty of Dentistry, University of Toronto, in 1951. His postgraduate studies were done at the University of Michigan, where he obtained an MPH degree in 1953.

Dr. Yeo has been an active member of CDA for many years, serving on several prominent councils and committees. He has been a member of CDA's Council on Public Health and a member and chairman of the Council on Education. He has also served as a member of CDA's committees on student affairs and survey policy.

He first became actively involved in community dentistry in Prince George, B.C. in 1951-52, when he was dental director of the Cariboo Health Unit. He was later named Regional Dental Consultant for the Fraser Valley area (1953-55) and from 1955 to 1964 was Director, Dental Health Services, for the metro Vancouver area.

He has served as an executive member of the B.C. branch of the Canadian Public Health Association and as Vice-President of the College of Dental Surgeons of British Columbia.

His university teaching career began in 1964, when he was appointed Associate Professor and Head

of Public and Community Dental Health at the UBC Faculty of Dentistry. Promoted to full professorship in 1970, Dr. Yeo became Assistant Dean of the faculty in 1972. In 1977 he was named Acting Dean and the following year, Associate Dean.

He has been registrar of the B.C. College of Dental Surgeons, an executive member of the Association of Canadian Faculties of Dentistry, the National Dental Examining Board, and examiner with the Section on Public Health of the Royal College of Dentists of Canada and the Canadian Association of Forensic Sciences.

Dr. Yeo has also been the Vice-President of the International College of Dentists (Canadian Section) and was named President of that Section in 1983.

He became a Fellow of the International College of Dentists in 1973 and of the Royal College of Dentists of Canada in 1975. He is a member of the Pierre Fauchard Academy and was the recipient of the Distinguished Service Award from the Canadian Red Cross Society.

Also with the Red Cross, Dr. Yeo has served as dental consultant for Red Cross Youth.

Terry Fox cancer research clerkships awarded to three dental students

The National Cancer Institute of Canada has announced that the dental students who have been awarded these research clerkships for 1983 are John P. Chan, University of Manitoba; Brian Warshafsky, University of Toronto; and William White, of the University of Alberta. This is the first year that this program has been open to dental students.

Its objective is for selected medical and dental students to obtain training in the methodologies and philosophy of cancer research. The awards are for \$10,000, spread over two summers and the intervening academic year.

Mr. Chan will be studying the con-

tribution of natural resistance to tumor progression in *vitro* at the Manitoba Institute of Cell Biology with Donna Chow. Mr. Warshafsky's project concerns a model system for studying osteogenic sarcoma cells. His supervisor is Dr. J.E. Aubin of the Medical Research Council Group in Periodontal Physiology at the University of Toronto. Finally, Mr. White will be studying the effect of oral hygiene regimens on oral complications of cancer chemotherapy with Dr. W.M. McGaw and Dr. A.L.A. Fields of the Faculty of Dentistry, the University of Alberta and the Cross Cancer Institute, Edmonton, respectively.

CDA Retirement Savings Plan

Unit values of the Canadian Dental Association's Retirement Savings Plan stood as follows on June 30, 1983.

<i>Common Stock Fund</i>	\$72.70502
<i>Fixed Income Fund</i>	\$36.35542
<i>Guaranteed Fund</i>	\$26.31719
<i>Balanced Fund</i>	\$15.00716

Total assets (market value) of the plan were \$37,060,973.

The previous month's figures, as of May 31, 1983, stood as follows:

<i>Common Stock Fund</i>	\$72.9715
<i>Fixed Income Fund</i>	\$36.0797
<i>Guaranteed Fund</i>	\$26.1882

Balanced Fund \$14.3765

Total assets (market value) of the plan were \$36,762,684.

For further information write to: Canadian Dental Service Plans Inc., Ste. 600, 2 Lansing Square, Willowdale, Ontario M2J 4Z3 or call the central information services of CDSPI at 1-800-268-5418 (toll free number for Western Canada, Atlantic Canada and Ontario for Code 807 only), 1-800-268-3411 (toll free number for Quebec and Ontario except Code 807), and 497-7117 (Metro Toronto area).

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Many dentists, doctors and lab technicians have been aware of and greatly concerned with the serious health hazards posed by continued exposure to mercury vapours.

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Until now attempts to filter these vapours from the work environment have been unreliable, inconvenient, inefficient.

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The System 1000 is a result of exacting design and has been subjected to the most vigorous test procedures to guarantee performance and trouble-free long life.

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'83 Update - Watch for health-conscious breakthroughs such as the Hg air filter for office/lab applications (shown above). New from MPS.

Manitoba dental faculty marks 25th Anniversary

On Friday, May 27, the Faculty of Dentistry of the University of Manitoba marked its 25th Anniversary in conjunction with the Faculty of Medicine, which was observing its 100th Anniversary.

"In 1957 our excellent centre for dental education came into being," Dean Arthur Schwartz told a gathering observing the event.

"Over the years our school has gained national and international acclaim. Our graduates have assumed a wide range of positions, in many parts of the world," Dean Schwartz continued. "It is most important, however, that we continue to strive to improve our teaching programs and our extensive research activities even further."

Founding Dean speaks

Alumni, faculty members and guests paid tribute to the work of the founding Dean of the university's faculty of dentistry, Dr. John W. Neilson, who was an honored guest on the occasion, and the keynote speaker. He was introduced by Dr. Ralph Crawford, President of the University of Manitoba Alumni Association, and a member of the Board of Governors of the Canadian Dental Association.

Dr. John E. Abra, a senior member of the Manitoba dental community and former president of the Manitoba Dental Association, was presented with the Distinguished Service Award of the University of Manitoba.

Dr. Abra was recently described by Dr. William Thompson, President of the Canadian Dental Association, as "indeed a worthy recipient." He "worked diligently in promoting the establishment of a dental faculty in Manitoba and has supported its activities fully in the past 25 years."

Honorary degrees

Associated with the special events

was the 104th annual Convocation of the University of Manitoba, during which leading international figures in medical and dental circles were awarded honorary degrees.

Among those honored were George Neil Jenkins, BSc, MSc, PhD, D. Odont., FDS, RCS, a teacher and research scientist whose work established and defined the discipline of oral biology, currently professor emeritus at the University of Newcastle-upon-Tyne, England, and Israel Kleinberg, DDS, PhD, FRCD, biochemist and oral biologist, currently in the

school of medicine at the State University of New York, and one of the first persons appointed to the University of Manitoba Faculty of Dentistry when it was established 25 years ago.

They were admitted to degrees as Doctors of Science, by Isabel Auld, BA, MA, LL.D., Chancellor of the University of Manitoba.

Following the ceremonial functions, 34 candidates were awarded the degree, Doctor of Dental Medicine, one, a Bachelor of Science in Dentistry, and 18 received the Diploma in Dental Hygiene.

Dalhousie honors school of hygiene director



The honorary degree of Doctor of Laws was conferred upon Mrs. Janet Burnham at Dalhousie University Faculty of Dentistry's 1983 Convocation. Mrs. Burnham was the first Director of Dalhousie's School of Dental Hygiene and has given many years of service to the education and administration of dental hygiene. Dr. W.A. MacKay, President of Dalhousie is shown congratulating Dr. Burnham, following her admission to the degree.

National Universities Week planned for October

Universities from coast to coast will join in a week-long celebration this fall to mark the achievements of Canadian higher education. National Universities Week (NUW) has been scheduled for October 2-8.

The theme of the week "We have the future in minds", is being billed as a low-budget celebration. The purpose of the week is to demonstrate the essential role of Canadian universities in community, regional and national development. It will draw attention to the value of teaching, scholarship, research, and cultural and public service activities, and will emphasize university contributions to business, industry and the economic life of Canadian society.

National Universities Week is a joint endeavor of the Association of Universities and Colleges of Canada (AUCC), the Council of Western Canadian University Presidents (COWCUP), the Council of Ontario Universities (COU), the Conference of Rectors and Principals of Quebec Universities (CREPUQ), and the Association of Atlantic Universities (AAU).

A National Coordinating Committee, comprised of representatives of the five organizations, has been established to coordinate activities and to assist individual institutions in planning for the festivities. The committee is chaired by McGill University Principal David Johnston and University of British Columbia President-elect George Pedersen.

Said Dr. Johnston, "We hope the week will foster a sense of pride on the part of the Canadian public in the notable accomplishment of our universities. The future well-being of our country is inextricably tied to the health of our higher education institutions. The economic and social development of our society over the past several decades was due in large mea-

sure to work that began on our university campuses. We want to remind the public that the universities are an essential part of our community".

Most NUW activities will take place on individual university campuses. Costs will be kept to a minimum by re-scheduling exhibits, public lec-

tures, open houses and other events that might normally be held at other times in the year, to coincide with the Week. The four regional and provincial university associations will coordinate cooperative events within their jurisdictions and, with the AUCC, will plan Canada-wide activities.

\$2.00

The advertisement features a repeating banner at the top that reads "EXPRESS DENTAL". Below the banner, various dental products are displayed, including a handpiece, boxes of COE-flex, SCUTAN, and dental X-ray film. The products are arranged in a way that suggests a wide range of dental supplies available for purchase.

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**See you at THE CANADIAN DENTAL ASSOCIATION CONVENTION
in VANCOUVER, BRITISH COLUMBIA: BOOTH NUMBER 117**

Briefly —

The New Brunswick Department of Health has cut its Dental Health Services program, which provided dental care to the province's working poor.

Approximately 6,000 people will be affected by the cuts, according to Dr. Jack Thompson, Executive Director of the New Brunswick Dental Society.

Hardest for the population to bear, said Dr. Thompson, will be the closure of three clinics currently operating in Fredericton, Moncton and Saint John. The clinics are scheduled to close in September. In addition, the province's mobile clinic will no longer operate and settlement grants to dentists wishing to practice in underserved areas will cease.

Dr. Thompson said the New Brunswick Dental Society is preparing a presentation to the government urging that the city clinics at least, be kept open.

National Dental Health Month in April was declared, by the Ordre des dentistes du Québec, to be a resounding success in that province.

Many Québec dental societies and dentists, at both the regional and local level, participated in the 1983 campaign. The Québec magazine, "Vivre" also published an eight page section, in their April edition, on dental health.

The President of the ODC, Dr. Marc Boucher, gave more than 10 interviews to the Québec media and both print and the electronic media gave National Dental Health Month extensive coverage in the province.

English and French radio and television stations in Québec participated by airing public service messages on dental health.

As part of ZooBooster Month in June, the Metro Toronto Zoo held a Smile Day.

Dr. Jack Cottrell, a Port Perry, Ontario dentist, and other members of the Durham Dental Association, set up a dental care display June 25, in

the meadow area of the zoo.

Assisted by two dental hygienists, Dr. Cottrell handed out dental health information and kits containing a toothbrush and toothpaste for children. The dental kits were provided by Procter and Gamble.

Dr. Cottrell also had Ontario's dental health symbol, Murphy the Molar, on hand to greet children and hand out dental health buttons.

As part of Smile Day, the zoo had displays of animal teeth in each of its pavilions, representing Africa, Indo-Malaya, the Americas and Australasia. Teeth and skulls from mammals, reptiles, fish and birds were on display, and volunteer guides answered visitors questions about animal teeth.

Dr. Daniel James Sullivan of Winnipeg, received the Award of Special Merit at the annual meeting of the American Association of Orthodontists, May 1-4.

The award was given for Dr. Sullivan's research in orthodontics.

Dr. Sullivan is in private practice in Winnipeg, and received his orthodontic degree from the University of Manitoba in 1982.

The College of Dental Surgeons of Saskatchewan is trying to change the licensing regulations governing graduates from U.S. dental schools wishing to practice in that province.

"The College is now discussing with the Minister of Health changes in the regulations which would require all graduates of U.S. dental schools to hold National Dental Examining Board certificates before licensure in Saskatchewan," said Dr. George Peacock, Secretary-Treasurer/Registrar for the College.

The College has been trying for many years to have this regulation changed and Dr. Peacock says it is felt they have a chance to change the regulations under the new provincial government.

"Saskatchewan is the only province which does not require U.S. dental graduates to have an NDEB certificate before licensure. We want to go

out and join the rest of the world in this regard."

The Executive of the College of Dental Surgeons of British Columbia was recently re-elected by acclamation for the 1983-84 term of office.

College President is Dr. R.J. Markey, of Richmond, B.C. The two Vice-Presidents are Dr. John Silver and Dr. Serge Vanry, both of Vancouver and the Treasurer is Dr. Jack Penzer of Langley.

In addition to holding elections, the B.C. College also held its annual meeting in May at which several key decisions were made.

Several amendments to the Dentists Act of B.C. were approved by the College and will be submitted to the provincial government for discussion. It was also decided to refer the matter of professional advertising by individual dentists to the College's Ethics Committee.

Ken Croft, Managing Director of the College said the Executive also heard a report on the annual CDA Convention taking place this year in Vancouver.

"We are looking forward to welcoming all the dentists of Canada to Vancouver in September," he said, on behalf of the College executive.

The city of Kelowna, B.C., was recently awarded a plaque for 25 years of continuous water fluoridation.

The plaque, which was presented to the city in June, was presented on behalf of several public health oriented organizations in the B.C. community. Among those honoured were the South Okanagan-Similkameen Union Board of Health, the Kelowna and District Dental Society, the Kelowna and District Medical Society, the B.C. branch of the Canadian Public Health Association and the Kelowna chapter of the Registered Nurses Association of B.C.

On December 9, 1954, Kelowna residents voted 699 to 581 in favour of community water fluoridation. A fluoridation plant was built and actual fluoridation began October 1, 1956.

Kelowna was the third city in B.C. to fluoridate. The first was Prince George, the second, Smithers.

The Canadian Dental Association is seeking a new Director of Accreditation.

Applications must be submitted by September 15, 1983, to Mr. Hubert Drouin, Executive Director, Canadian Dental Association, 1815 Alta Vista Dr., Ottawa, Ontario, K1G 3Y6.

Please see page 587 for further details on the position.

The 72nd annual World Dental Congress of the FDI will be held in Helsinki, Finland, August 24-31, 1984.

Main themes of the scientific program at the Congress will be "Changing Patterns of Oral Health and Treatment Demands", "Changing Patterns of Diagnosis and Treatment" and "Sugar and Sweeteners and Oral Health."

Two Symposia are being prepared by the Finnish Scientific Committee, one entitled "International Symposium on Sweeteners", the other entitled "The Scandinavian Way of Periodontal Treatment."

In conjunction with the Congress, a dental trade exhibition will be organized. The social program offers both pre-and post-Congress tours, concerts and other cultural events, tours and visits to interesting Finnish sights.

The London Regional Children's Museum in London, Ontario, is the first museum of its kind in Canada. It was the place for children to learn about dentistry during Dental Health Week in that area.

The museum consists of several galleries, all with displays designed for "hands on" participation by young



Interested young museum visitors learn about sealants in the "Toothitorium."

museum patrons. In one of these galleries, "The Street Where You Live", children can see everything from how a house is constructed to what's under a manhole cover. The office of Dr. Hap E. Smile was set up in this gallery during Dental Health Week.

The Middlesex London's Health Unit provided portable dental equipment for the "office." Children could hold and work the handpiece, polish and observe a mannequin's teeth and fillings, and squirt the syringe. Next to the office was a display of dental radiographs showing various types, how they work and what they are used for.

The museum auditorium was converted to a "Toothitorium" during

Dental Health Week. It contained four dental exhibits, including Gum Check, Count Your Teeth, Sealants and a play area with Murphy the Molar jigsaw puzzles and a game, "Up the Toothbrush", similar to "Snakes and Ladders."

As children entered the museum, they passed a "Tooth Booth" where they were given a dental questionnaire to fill out and a Murphy the Molar toothbrush and sticker.

Museum directors hope that, in the near future, a permanent dental office will be setup in the gallery "The Street Where You Live."

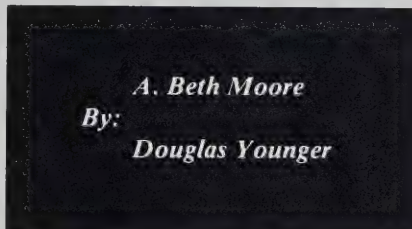
Informed consent to dental treatment

The increasing awareness by recipients of medical services of their rights to be fully informed about and to be permitted to make intelligent decisions and choices relating to the forms of medical treatment recommended or offered to them by their doctors has in turn led to an increasing uncertainty among medical practitioners as to the nature and extent of the disclosure obligations owed by them to their patients. Two recent decisions of the Supreme Court of Canada, *Hopp v. Lepp* (1980) 112 DLR (3d) 67 and *Reibl v. Hughes* (1980) 114 DLR (3d) 1, have clarified the tests which are now being applied by the courts in determining whether there has been sufficient disclosure of the risks of the recommended treatment to permit the patient to give an "informed consent". This article discusses the nature and extent of the duty of disclosure which the courts are now prepared to impose on medical practitioners and concludes with a brief discussion of the usefulness of consent forms and information brochures in assisting dentists to satisfy their disclosure obligations. While most of the reported court decisions deal with actions against physicians rather than dentists the principles applied by the courts are equally relevant to both.

Nature and significance of informed consent as a defence

Malpractice claims may be brought against physicians and dentists either in battery or negligence. The issue of consent is crucial in both. The essence of an action in battery is that the patient has been treated without consent. The basic principle underlying the action is that no one can be forced to accept medical treatment against his will, no matter how beneficial or necessary it may be; accordingly unless the patient has consented to the

treatment a court will consider there to have been an assault or trespass to his person for which he should be entitled to damages. Negligence actions on the other hand can involve two elements, the first being whether the medical practitioner provided the treatment or performed the operation in question with the degree of skill and care required of a reasonably prudent practitioner and the second being whether the practitioner has satisfied the duty of disclosure required of a reasonably prudent practitioner. It is this second element of the negligence action to which the defence of informed consent is most relevant, as the test of whether this duty of disclosure has been satisfied will be determined on the basis of whether the patient has been given sufficient information on which to base a decision as to whether or not to undergo the proposed treatment or operation.



The Nature of the Action

Prior to the decision of the Supreme Court of Canada in *Reibl v. Hughes* (1980) 114 DLR (3d) 1, it was possible for a patient to sue in either battery or negligence where his allegation was that he had not been adequately informed as to the risks of medical treatment. The Supreme Court in that case, however, restricted the action in battery to those situations where there has been no consent at all to the medical treatment, where the treatment has gone beyond the consent given, or where the consent has been obtained by misrepresentation (i.e. a different surgical procedure

has been carried out than that which was agreed to). Some examples of situations in which practitioners have been found liable in battery under these types of circumstances include:

- (a) removal by a dentist of all the patient's upper teeth where the patient had in fact consented only to the removal of one tooth;
- (b) extraction by a dentist, at the request of a surgeon performing a tonsillectomy operation, of some of the patient's teeth while the patient was anaesthetized, despite the fact that the patient had consented only to the tonsillectomy itself;
- (c) performance by a doctor of a spinal fusion where the patient had consented only to an operation on his toe; and
- (d) injection of anaesthetic into the patient's left arm in contravention of her express instructions not to do so.

To succeed in this type of action the patient must establish that the medical practitioner failed to disclose to him the basic nature and character of the operation or treatment including its inevitable consequences. His action will not succeed if it is based on the practitioner's failure to disclose to him the **material risks** (as opposed to the basic nature and character) of the procedure.

A determination that an action lies only in negligence, as opposed to battery, may make the difference between ultimate success or failure by the patient. The reason for this is twofold: first, in battery, the onus is on the doctor to prove that there was consent to the treatment administered, whereas in negligence the onus is on the patient to demonstrate that there was an absence of consent as a result of the doctor's failure to disclose; and second, in battery the plaintiff is not required (as he is in a negligence action) to estab-

lish a causal connection between the doctor's failure to disclose the risks and consequences of the operation and the injuries resulting from it but need only establish that his injuries resulted directly from the treatment or operation itself.

The decisions of the Supreme Court in *Hopp v. Lepp* and *Reibl v. Hughes* substantially altered the nature of negligence actions against medical practitioners by clarifying the standard to be observed by such practitioners in determining the scope of their duty to disclose risks to a patient and by clarifying the nature of the test to be used in determining if a doctor's breach of the duty to disclose was a cause-in-fact of the patient's injuries. Each of these elements must now be examined in turn.

The Standard of Disclosure

According to the Supreme Court of Canada in order to satisfy his disclosure obligations a doctor is required to:

- (1) answer specific questions posed by the patient concerning any risks involved in the treatment; and
- (2) disclose voluntarily:
 - (a) the nature of the operation,
 - (b) the gravity of the operation,
 - (c) any material risks of the operation (including risks that are a mere possibility but that carry serious consequences such as paralysis or death), and
 - (d) any special or unusual risks of the operation.

In order to determine the depth and detail of the disclosure of material risks that is required the practitioner must consider whether a reasonable person in the position of the patient would be likely to attach significance to the risk or risks in deciding whether or not to undergo the proposed therapy. This involves an analysis of: (i) the risks inherent in a given procedure or treatment; (ii) the consequences of leaving the problem untreated and the alternative means of treatment and their risks; (iii) whether the particular patient is especially susceptible to any

given risk in terms of its probability of occurrence or seriousness; (iv) whether the patient's circumstances make an otherwise immaterial risk material to him; and (v) whether the patient's emotional condition, and how the prospect of an operation weighs upon him, require either a higher level of generalization or a more detailed explanation of the nature of the relevant risks.

While the determination of how much disclosure is required will vary with the circumstances of any given case, certain general principles can be established. Firstly, certain factors must always be disclosed because they will invariably be material to any reasonable patient. These include, in addition to the nature and seriousness of the procedure, its purpose and whether it is necessary or elective. Secondly, inevitable consequences of the proposed treatment and of its alternatives, including foregoing all treatment, must be disclosed. Thirdly, the nature of the hoped-for benefits arising from the proposed treatment and the likelihood of achieving these in relation to each possible alternative, including no treatment at all, must be described and these chances of benefit from alternative treatments must then be offset against any chances of harm resulting from the same treatments. This information must be given whether or not the patient requests it. The following statement of Chief Justice Laskin in *Hopp v. Lepp* (at pages 79-80) is indicative of the approach to the disclosure obligation which the courts are now taking:

I am far from persuaded that the surgeon should decide on his own not to warn of the probable risk... of impairment if the course of treatment contemplated is administered. A surgeon is better advised to give the warning, which may be coupled with a warning of the likely consequence if the treatment is rejected. The patient may wish to ask for a second opinion, whatever be the eminence of

his attending physician. It should not be for that physician to decide that the patient will be unable to make a choice and, in consequence, omit to warn him of risks.

Determining which risks of harm to disclose is of course the most difficult problem for medical practitioners. Hindsight being what it is, it always seems quite obvious to the patient after the injury has occurred that the risk of that particular injury occurring was a material risk which should have been disclosed even if the probability of its occurrence was relatively low. In general, it may be said that the more serious the consequences and the higher the probability of their occurring, the more likely it is that a court would consider a risk material. Thus, even if there is only a slight chance of serious injury or death resulting from an operation, the gravity of its potential consequences demands that such a risk be disclosed. Alternatively, where there is a significant chance of slight injury resulting from the treatment, such a risk would be considered material and therefore worthy of disclosure. Where a procedure is being performed for cosmetic reasons or is elective, risks of injury which might not be considered material where the procedure is being performed for reasons of medical necessity may be found to be material risks which must be disclosed.

Some examples taken from the reported cases may be helpful to illustrate what courts consider to be material risks:

- (1) In *Reibl v. Hughes* the court held that a 4 per cent risk of death and a 10 per cent risk of paralysis arising out of surgery to remove blockage in one of the arteries in the neck were material risks. The court also took into account in determining that the surgeon had negligently breached his duty of disclosure that he had not made it clear to the patient that the operation would not cure the problem that the patient was concerned about (namely, continuing headaches and hypertension).

(2) In **White v. Turner** (1981) 120 DLR (3d) 269 (Ont. HC) the court held that the failure of a plastic surgeon to advise a patient that a mammoplasty, which was being performed for purposes which were primarily cosmetic, could result in extensive scarring and deforming of the breasts, constituted a failure to fully disclose the risks material to the operation.

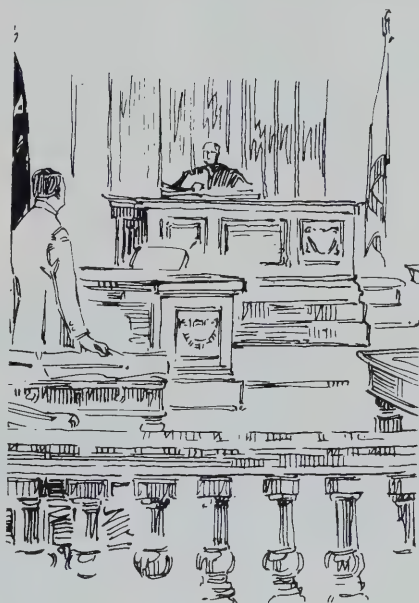
(3) In **Bickford v. Stiles** (1981) 128 DLR (3d) 516 the court held that the risk of a patient's vocal cord being paralysed, with a consequent loss or serious impairment of the voice, as a result of a diagnostic operation, was a material risk.

(4) In **Zimmer v. Ringrose** (1981) 124 DLR (3d) 215 it was held that, where a doctor used a new technique for the purpose of sterilizing a female patient, the doctor's duty of disclosure was negligently breached by the doctor's failure to provide the patient with a comparison of the new technique and other methods of sterilization and by his failure to advise the patient that the technique had not been approved by the medical profession.

Causation

As mentioned earlier, a patient who has established that a medical practitioner has negligently failed to disclose material risks of the treatment must then establish, in order to succeed in his action, that the direct cause of the patient's damages was the doctor's failure to disclose. The test to be applied can be stated as follows: "Would the reasonable person in the patient's particular position have refused the treatment if all material and special risks of going ahead with the treatment or foregoing it had been fully disclosed to him?" The test is primarily objective but also involves subjective considerations. The following statement of the court in **White v. Turner** (at p.287) is helpful in understanding the importance of the distinction between the objective and subjective elements of the tests:

... a patient who says he would have foregone life-saving treatment because it might have caused a rash or a headache, cannot recover on the basis of inadequate disclosure, even if he is believed, because a reasonable patient would have gone ahead.



While the medical considerations which are relevant in the application of the test to various patients may be fairly similar for any given procedure, risks which may be of no importance to one patient may be critical to another in deciding whether to consent to a recommended form of treatment. It is therefore essential that a medical practitioner consider carefully the patient's personal concerns and circumstances in determining which risks to disclose. Some examples of how the test has been applied by the courts may again be helpful in understanding their approach to the issue:

(1) In **Reibl v. Hughes** the court held that because (i) the patient was within 1½ years of becoming eligible for pension benefits if he continued in his employment, (ii) there was no immediate need for the surgery, (iii) there was a significant risk of a stroke or worse during the operation while the risk of a stroke without it was in the future,

and (iv) the plaintiff was under the mistaken impression, as a result of the defendant's breach of his duty of disclosure, that the surgery would relieve his headaches and hypertension, a reasonable person in the plaintiff's position, if properly informed, would not have consented to the operation.

(2) In **Bickford v. Stiles and Zimmer v. Ringrose** the courts held that even if all the relevant risks of the operations in question had been fully disclosed the plaintiffs would nevertheless have consented to the surgery; therefore the breach of the duty to disclose did not cause the damages sustained.

(3) In the unreported decision of the Supreme Court of British Columbia in the **Lindsay v. Rawlings** case the court held that, considering the age and social circumstances of the patient, the fact that the extraction of the patient's wisdom teeth was not going to help her jaw problem and that there was no medical necessity for the operation, a reasonable patient in the plaintiff's position would not have consented to the operation had she been fully informed of the five to ten per cent chance that nerve damage and the pain and discomfort associated with such damage could result from it.

The Use by Dentists of Consent Forms and Information Brochures

It is important for dentists to be aware that it is not sufficient for them, from the standpoint of negligence law, merely to perform the actual operation or procedure carefully and competently; they also have a duty to disclose the risks of the operation or procedure and may be found negligent if that duty is breached. Whether sufficient disclosure has been made is a question of fact. The existence of a signed consent form will be one piece of evidence that the court will consider in determining whether there has been sufficient disclosure. Probably the greatest value of a consent form is in relation to actions in bat-

tery where proof that the patient has consented to the particular treatment, whether or not fully informed of the material risks, will be a successful defence to the action. Even here, however, a written consent may be worthless if it lacks one of the four prerequisites for validity in that it is: (a) not given voluntarily; (b) not given by a patient having capacity (for example, the patient is under 18); (c) not given by a patient who has been informed as to the nature and character of the treatment; or (d) not referable both to the specific treatment and to the person who is to administer such treatment. In respect of this last requirement, many medical consent forms currently in use which provide blanket consent, authorizing unspecified additional or alternative treatment, may be so indefinite that a court would give them little weight.

Consent forms in themselves are of limited value where actions are brought in negligence for failure to disclose material risks. One judge has summarized the court's view of such forms as follows (*underlining added*)

The issue of informed consent involves matters of both fact and law. While the plaintiff signed a standard form of authorization and consent prior to the operation in which she acknowledged the nature of the operation had been explained to her satisfaction, *the existence of that consent does not protect a doctor from liability unless the patient has been informed to the satisfaction of the court.*

There is, therefore, no substitute for proper verbal communication between dentist and patient as to the nature of the treatment and the risks involved in it as seen in light of the patient's situation.

Information brochures are also no substitute for verbal disclosure and communication with the patient but still may serve two useful functions. First, they may provide sufficient information as to the basic nature and

character of the procedure and of any attendant material and special or unusual risks to satisfy the full disclosure standard in most instances and to do so in the most expeditious manner possible. Secondly, such documents may prove valuable as evidence in court should there be a dispute between dentist and patient as to the scope of the information actually provided. There are, however, limits to their utility. The dentist is still obligated to ensure that the patient has both read and understood the brochure. In addition, and most importantly, the dentist, as was discussed earlier, must assess the particular circumstances of the patient in order to determine what risks are material to that patient (whether or not described in the brochure) and must disclose all factors which a reasonable person in the position of the patient would deem relevant to his decision as to whether or not to consent to the recommended treatment. Any dentist using a brochure or fact sheet to assist him in his disclosure obligation must be very aware of the fact that use of the printed material alone will not fulfill his disclosure obligations. Such material can be dangerous if it is used instead of, rather than as a supplement to, proper dentist-patient communication.

Conclusion

The Supreme Court of Canada, through its decisions in the *Hopp v. Lepp* and *Reibl v. Hughes* cases, has imposed a heavy onus on medical practitioners to ensure that their patients are adequately informed as to the nature and risks of proposed treatment. Though it may sometimes be difficult for a patient suing his former dentist to demonstrate a link between a breach of the dentist's duty to disclose and any damage sustained, dentists must nevertheless be careful in future (if they wish to be reasonably certain of avoiding or successfully defending malpractice actions) to discuss fully with the patient the nature and risks of the proposed treatment and to respond to any questions

and concerns the patient might have concerning it. While standardized consent forms and fact sheets may, to a limited extent, aid the dentist in discharging this responsibility, dentists must avoid the temptation of relying on such documents to a greater extent than the courts will consider acceptable in the hope that they will both ease the dentist's task and at the same time effectively shield the dentist against possible legal liability.

A. Beth Moore and Douglas Younger, the authors of this article, are members of the Toronto law firm, *Campbell, Godfrey & Lewis, Barristers and Solicitors*.

Obituaries/ Nécrologies

CASAU BON, Jacques: Né en 1923 et diplômé de l'Université de Montréal en 1949, le Dr Casaubon habitait à Berthier (Québec) au moment de son décès.

MILLS, A.C.: Dr. Mills was born in 1904 and graduated from the University of Toronto in 1931. A resident of Erin, Ontario, at the time of his death, he was a Life Member of the Canadian Dental Association.

MOORE, S.R.: Dr. Moore graduated in 1909 from the RCDS in Toronto. He was a resident of London Ontario at the time of his death.

OLIVIER, Jacques: Diplômé de l'Université de Montréal en 1943, le Dr Olivier était un membre de l'Association dentaire canadienne. Au moment de son décès, il demeurait à St-Alphonse (Québec).

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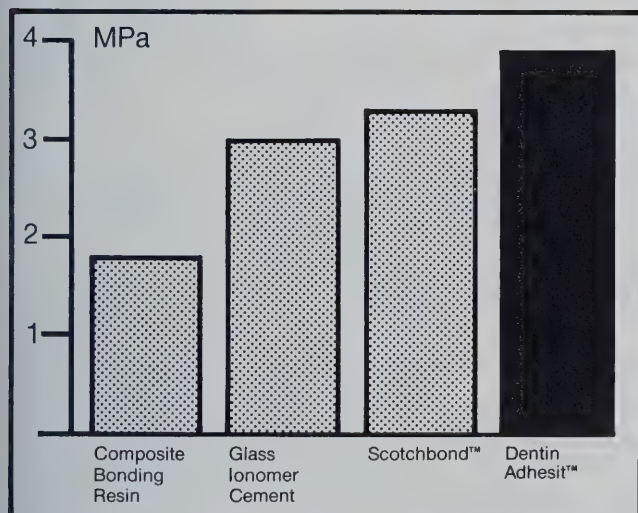
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REFERENCES:

- ¹Retief, D.H., Austin, J.C., and Fatti, L.P. Pulpal Response to Phosphoric Acid J. Oral Path. 3:114, 1974
²Goto, G. and Jordan, R. Pulpal Effects of Concentrated Phosphoric Acid Bull. Tokyo Dent. Coll. 14:105, 1973
³Erikson, H.M. Pulpal Response of Monkeys to a Composite Resin Cement J. Dent. Res. 53:565, 1974
⁴Stanley, H.R., Going, R.E. and Channcey, H.H. Human Pulp Response to Acid Pretreatment of Dentin and to Composite Restoration. JADA 91:817, 1975
⁵Macko, D.J., Rutberg, M. and Langeland, K. Pulpal Response to the Application of Phosphoric Acid to Dentin. Oral Surg. 45:930, 1978.

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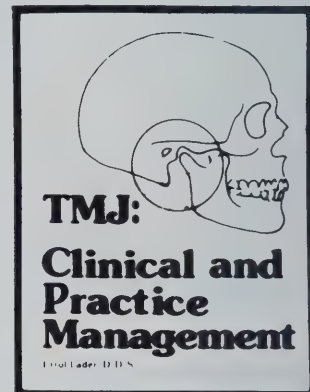
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Medical Emergencies in Dentistry

Frank M. McCarthy

*W.B. Saunders Co.
Philadelphia, PA
422 pgs.*

This text is an abbreviated version of an already valuable book, "Emergencies in Dental Practice". Major portions of the latter text are reproduced here without change, and no new information is added to this edition.

The emphasis is on prevention, which, as the author states, is based on recognition of patients with compromising medical situations. In this vein, the first section of this book covers the evaluation and physical diagnosis of patients.

The first chapter covers the subject of sudden death, with an emphasis on considerations and steps to take in the event of an office death.

The next two chapters cover evaluation and physical diagnosis. However, far from being an in-depth method of conducting a physical evaluation, the systems review, briefly outlines the most common pathological states that affect individual systems.

Monitoring as a preventive measure is reviewed extensively. This portion covers the range of devices from direct observation to the most sophisticated electronic monitors of the cardiovascular and respiratory systems. Whereas an appreciation of such devices is advantageous to those practitioners using general anaesthesia, their use is impractical and unnecessary for most dental personnel.

A full 90 pages is devoted to a chapter on the use and abuse of drugs. It contains a wealth of information regarding the general use of most medications, but little on their use in emergencies or the treatment of a drug-related emergency. Also included in this chap-

ter are two excellent reprints from "The Medical Letter" on antimicrobials and adverse interactions of drugs.

Basic life support and cardiac life support are covered in two separate chapters. The chapter on basic life support provides an extensive coverage on the technique of airway maintenance, and the administration of parenteral medications. The chapter on cardiopulmonary arrest again covers basic life support and includes a brief section on advanced life support. It is hoped that all dental practitioners are well versed in the procedure of CPR. The information contained in this chapter is, however, insufficient for effective management.

The chapter on allergy is excellent. Allergic concepts are clearly outlined and the types of allergic manifestations are well explained. The treatment of allergic reactions is well covered in point form.

Chapter eight covers a broad range of medical emergencies quite briefly. Predisposing factors and pathophysiology are not mentioned, but clinical manifestations and treatment are clearly written in point form.

Two excellent reference chapters follow on complications arising from the use of local and general anaesthesia. Virtually every possible complication is covered.

A chapter on medico-legal aspects rounds out the text. This chapter cites precedents in legal proceedings which may act as a guide to the actions of a practitioner in handling emergencies.

In this text, the three basic components of an emergency situation — prevention, recognition, and effective treatment — are analyzed separately. It may have been preferable to discuss each emergency condition as a complete entity rather than separating them into components, and placing them widely apart in the text.

A caveat must be reserved for the fact that this is not an original text. Provided one's library does not include McCarthy's *Emergencies in Dental Practice* this would be a welcome edition as a reference text, but as an emergency handbook, it lacks clarity of presentation.

This book was reviewed by J. Duncan Wray, Department of Oral Surgery, College of Dentistry, University of Saskatchewan.

An Introduction to Functional Occlusion

Major M. Ash

and Sigurd P. Ramjford

*W.B. Saunders Co., 1982
Philadelphia PA.
240 pages*

This well-written 240 page soft cover text is a reminder that all of the technical data we contact is not storable. We need good basic

sources of data for reference and review. The illustrations, in the main, are well done. The style is easy to follow and the type-face chosen is clear.

The material is presented in a very logical manner and one is appreciative of the effort taken by two masters in the field to organize and share their knowledge. The superiority of this solid base of information is evident when compared to the plethora of information that is disseminated by

some of the hucksters of occlusal and T.M.J. therapy on the "circuit" today. While the authors classify this volume as a manual based on material to undergraduates and graduates, it provides information for all levels of dental interest.

Each chapter includes a statement of the objective of the subject, a reading list, an exercise with "write-in" space for questions and a test. This enables the reader to solidify the basis of knowledge

before advancing to the next chapter.

The authors describe the concepts of occlusion; the use of a relatively simple articulator in diagnosis; the mounting of diagnostic casts; occlusal adjustment; the use of occlusal splints (bite planes) and waxing for functional occlusion. The chapters on occlusal adjustment and on occlusal splints are exceptionally clear in concept and technique.

This text should have a place on most dentists' library shelf. A serious study of this text combined with some application at one's work bench or laboratory will equate well to the short course on the subject.

This book was reviewed by Dr. R.A. Clappison, Toronto, Ontario, secretary-treasurer of The Association of Prosthodontists of Ontario.

Killey's Fracture of the Middle Third of the Facial Skeleton (4th Ed.)

Peter Banks (Ed.)

*John Wright, PSG Inc.
Littleton, Massachusetts
96 pgs.*

Since 1965, Professor Killey's handbook dealing with midface fractures has provided the profession with an excellent outline, dealing with the diagnosis and management of this type of facial trauma.

The new edition, although somewhat changed in its layout, retains almost entirely the format of previous editions.

As should be the case with an introductory handbook, the first 49 of the total 82 pages, deals with general considerations and the diagnosis of this type of facial trauma. Later chapters are devoted to an outline of definitive treatment which is very complete, considering the size of the volume.

In the chapters dealing with the general management of the patient and with the clinical findings, the very important areas of airway management, hemorrhage control, cerebrospinal rhinorrhoea, etc., are only briefly touched on as

is radiographic examination. While clinical findings are covered in detail and the listings of signs and symptoms are excellent, I would like to have seen more emphasis placed on radiographic interpretation. In this respect I feel that the handbook is lacking; however the technical problems of presenting meaningful radiographic interpretation in a publication of this size, is recognized.

This text recognizes the controversies existing today regarding clinical management, and the author has indeed presented a clear and concise summary of various treatment options. As would be expected, the use of cast cap splints, the Gillies approach for the reduction of zygomatic fractures, and the importance of extra oral fixation via craniomandibular or craniomaxillary appliances is detailed. Although the author lists the various methods of internal fixation and suspension, the case for extra oral immobilization is well presented and in indicated situations, must form part of the armamentarium available to today's surgeon.

Although complications are mentioned at the end of the text, the clarity and precision which is brought to the evaluation and management of these patients in this handbook, almost makes the reader believe that these most

challenging problems can be handled without great difficulty. The experienced practitioner surely knows otherwise.

In order to stimulate further study the Bibliography lists more than 200 references which include some earlier publications which are of historical interest. Few articles are listed which have been published within the past three to four years.

Most North American texts on oral and maxillofacial surgery, designed for undergraduate students, devote the greater part of their sections on facial trauma to the management of mandibular fractures, with maxillary trauma receiving only cursory mention. In this regard Killey's Fractures of the Middle Third of the Facial Skeleton serves as an excellent introduction, not only for post-graduate and graduate students, but the undergraduate student as well. In their usual fashion, the British have continued to provide us with clearly written, accurate, and concise volumes dealing with a variety of surgical topics of interest to the general practitioner, as well as the surgical specialist.

This book was reviewed by Dr. Eric Millar, Associate Director, Division of Oral and Maxillofacial Surgery, Faculty of Dentistry, McGill University.

CDA Resource Centre / Le Centre de documentation

ACQUIRED IMMUNE DEFICIENCY SYNDROME (AIDS)

One copy of the following articles is available from the library. This bibliography was generated with the help of MEDLARS, a computerized information retrieval system for the Health Sciences field, which has been operational at the library since February 1982, and is at the disposal of all members.

1. *Acquired immune deficiency syndrome (AIDS) in prison inmates — New York, New Jersey.* Center For disease Control Morbidity and Mortality Weekly Report, v. 31, no. 52, January 7, 1983, pp. 700-701.
2. Clumeck, N. and others. *Acquired immune deficiency syndrome in Black Africans* (letter). *Lancet*, v. 1, no. 8325, March 19, 1983, p. 642.
3. Curran J.W. and others. *Acquired immune deficiency syndrome: the past as prologue.* *Annals of Internal Medicine*, v. 98, no. 3, March 1983, pp. 401-403.
4. Detels, R. and others. *Relation between sexual practices and T-cell subsets in homosexually active men.* *Lancet*, v. 1, no. 8325, March 19, 1983, pp. 609-611.
5. Greenberg F. and Enlow, R.W. *Screening for risk of acquired immune — deficiency syndrome* (letter). *New England Journal of Medicine*, v.307, no. 24, December 9, 1982, pp. 1521-1522.
6. *Immunodeficiency among female sexual partners of males with acquired immune deficiency syndrome (AIDS) — New York.* Center For Disease Control Morbidity and Mortality Weekly Report, v. 31, no. 52, January 7, 1983, pp. 697-698.
7. *Leads from the MMWR. Prevention of acquired immune deficiency syndrome (AIDS): Report of inter-agency recommendations.* *Journal of the American Medical Association*, v. 249, no.

12, March 25, 1983, pp. 1544-1545.

8. Mildvan, D. and others. *Opportunistic infections and immune deficiency in homosexual men.* *Annals of Internal Medicine*, v. 96, no. 6 Part 1, June 1982, pp. 700-704.

Abstract: A syndrome of opportunistic infections and acquired immune deficiency occurred among four previously healthy homosexual men. Fever, leukopenia, and diminished delayed hypersensitivity were accompanied by various degrees of proctitis, perianal ulcerations and lymphadenopathy. The infectious agents included *Pneumocystis carinii*, *Cryptococcus neoformans*, *Candida albicans*, herpes simplex virus, and cytomegalovirus. The immune deficiency was characterized as a persistent and profound selective decrease in the function as well as number of T lymphocytes of the helper/inducer subset and a possible activation of the suppressor/cytotoxic subset. Three patients died despite aggressive anti-infective therapy.

9. *Possible transfusion-associated acquired immune deficiency syndrome (AIDS) — California.* Center for Disease Control Morbidity and Mortality Weekly Report, v.31, no. 48, December 10, 1982, pp. 652-654.
10. Snider, W.D. and others. *Primary lymphoma of the nervous system associated with acquired immune-deficiency syndrome*

SYNDROME DE DÉFICIENCE IMMUNITAIRE ACQUISE

On peut se procurer une copie des articles ci-dessous. Cette bibliographie a été dressée grâce à MEDLARS, un système automatisé de recherche documentaire sur les sciences de la santé que la bibliothèque exploite depuis le mois de février 1982, et qu'elle met au service de tous les membres.

(letter). *New England Journal of Medicine*, v. 308, no. 1, January 6, 1983, p. 45.

11. Thorton, E. and others. *Syndrom de déficience immunitaire acquise et infections opportunistes chez une femme.* *Schweizerische Medizinische Wochenschrift*, v. 113, no. 1, January 8, 1983, pp. 28-30.

Abstract: Case report on a 49-year-old woman who contracted acute hepatitis B during a trip to Haiti in 1977. The hepatitis healed and the patient was in good health until July 1982 when she died of *pneumocystis carinii* pneumonia despite early treatment. This case resembles the acquired immune deficiency syndrome recently described in the United States among homosexuals and Haitians.

12. *Update on acquired immune deficiency syndrome (AIDS) — United States.* Center For Disease Control Morbidity and Mortality Weekly Report, v. 31, no. 37, September 24, 1982, pp. 513-514.

13. *Update on acquired immune deficiency syndrome (AIDS) among patients with hemophilia.* Center For Disease Control Morbidity and Mortality Weekly Report, v. 31, no. 48, December 10, 1982, pp. 644-646, 652.

14. Waterson, A.P. *Acquired immune deficiency syndrome.* *British Medical Journal (Clinical Research)*, v. 286, no. 6367, March 5, 1983, pp. 743-746.

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C.P. 339, Port Credit, Ontario L5G 4L9

[†] Pour régimes à teneur réduite en calories



Portion (mL)	125	125	125	125	125	125	125
Calories (Kcal)	9	9	8	9	68	69	77
Hydrates de carbone (g)	0,1	0,1	0	0	11,8	11,9	13,3
Protéines (g)	1,6	1,7	1,6	1,6	4,5	4,5	5,4
Gras (g)	0	0	0	0	0,2	0,2	0,6
Aspartame (mg)	60	60	60	60	75	75	75

*Marque déposée de General Foods Inc.

**D-Zerta n'est pas encore offert en Ontario.

†Marque de commerce de Searle.



Le régime d'assurance des dentistes du Canada

Bonnes nouvelles

- une assurance vie à prime modique pour les non-fumeurs
- une augmentation automatique de 10 % de votre assurance vie, même si vous êtes en mauvaise santé

Les primes des assurances vie proposées par le régime d'assurance des dentistes du Canada sont déjà parmi les moins élevées de toutes. Et maintenant, si vous n'avez pas fumé de cigarette au cours des 12 derniers mois, vous pouvez obtenir des tarifs encore moins élevés. Les réductions sont fonction de l'âge et peuvent aller jusqu'à 15 %. Elles entreront en vigueur le 1^{er} janvier 1984.

Prime annuelle pour \$ 10 000 de garantie

Age le plus proche au 1 ^{er} janvier	Fumeurs	Non-fumeurs
Moins de 25 ans	\$ 8,56	\$ 8,56
25-29 ans	9,68	9,48
30-34	11,40	10,96
35-39	14,32	13,48
40-44	20,76	19,12
45-49	33,56	30,20
50-54	53,64	47,20
55-59	67,00	56,96
60-64	107,68	99,60
65-69	226,80	226,80

Nous faisons parvenir tous les détails sur ces offres à tous ceux qui participent à l'assurance vie du RADC. Vous devriez recevoir votre documentation au plus tard le 30 septembre. Si vous ne participez pas à cette assurance, veuillez appeler le Service de renseignements du CDSPI pour obtenir un formulaire de proposition.

Pour un service personnalisé ou pour tout problème d'assurance, contacter le Service de renseignements du CDSPI, à n'importe quelle heure, sans frais :

1.800.268.54.18 Provinces de l'Ouest, provinces atlantiques et région de l'Ontario avec l'indicatif régional 807
1.800.268.34.11 Québec et Ontario, **sauf** pour la région avec l'indicatif régional 807
497.71.17 Toronto et environs



Le régime
d'assurance
des dentistes
du Canada

CDA Convention • VANCOUVER • Congrès de l'ADC

25-28 sept. 1983



Les faits saillants du congrès

Les faits saillants du congrès.

Il y en aura pour tous les goûts au congrès de l'ADC qui aura lieu du 25 au 28 septembre, à Vancouver.

Comme hors d'oeuvre, avant les activités officielles, il y aura la course de dégourdissement annuelle qui se déroulera au parc Stanley. Départ à 8 h, le dimanche 25 septembre. Un maillot sera remis gratuitement à tous les participants. En soirée, une réception sans cérémonie sera offerte aux congressistes sous le thème de la ruée vers l'or de la Colombie-Britannique: buffet et bar payant.

La soirée du lundi commencera par une dégustation de vins et fromages, suivie d'une visite des meilleures tables de Vancouver. Les congressistes n'auront qu'à consulter les menus au kiosque d'inscription dans la journée de dimanche pour choisir leurs restaurants. Sont bienvenus, les membres de l'ADC, de l'ACDH et de l'ACAD, ainsi que leur conjoint ou conjointe. Voici la liste des établissements parmi lesquels vous aurez à choisir.

Bridges: Un élégant grenier de l'île Granville offrant un magnifique panorama: ponts, bateaux, montagnes, lumières de la ville. Spécialité: les fruits de mer.

English Bay Café: Un délice pour les yeux — le plus beau panorama de Vancouver, la baie des Anglais — et pour le palais — excellente cuisine continentale.

OÙ CUEILLIR LES TITRES DE VOTRE INSCRIPTION

À compter de midi, le dimanche 25 septembre, vous pourrez cueillir vos billets, votre quittance et votre carton d'inscription aux endroits suivants:

l'ADC — au troisième étage de l'hôtel *Hyatt Regency de Vancouver* (Convention Level) (du dimanche au mercredi).

l'ACHD — au deuxième étage de l'hôtel *Hyatt Regency de Vancouver* (Plaza Level) (le dimanche 25 septembre seulement),
— à l'hôtel *Four Seasons* (du lundi au mercredi).

l'ACAD — au deuxième étage de l'hôtel *Hyatt Regency de Vancouver* (Plaza Level) (le dimanche 25 septembre seulement),
— à l'hôtel *Georgia* (du lundi au mercredi).

Il Giardo: Où le gibier et la volaille sont offerts sur la terrasse intérieure dans un élégant décor florentin.

Koji: Une aventure culinaire japonaise dans des salons aux tapis de tatami. Bar sushi et vue spectaculaire de la ville.

Kettle of Fish: Assortiments de fruits de mer frais du jour, offerts dans une ambiance aérée invitant à la détente, typique de la côte ouest.

La Cantina: Le restaurant préféré des amateurs de fruits de mer servis à l'italienne vous offre un dîner bien arrosé. Laissez-vous gâter par le chef Umberto.

Las Tapas: Ce bistro unique vous offre un coin d'Espagne avec sa ter-

rasse intérieure et sa cuisine européenne.

Mark James: Laissez-vous tenter par ses spécialités typiques de la côte ouest servies sur la terrasse à triple gradin, d'une élégante simplicité.

Peninsula: Un dîner de gourmet dans une ambiance typiquement chinoise. La cuisine cantonnaise à son meilleur.

The Tea House: Une cuisine continentale offerte dans le décor unique du parc Stanley avec une vue formidable du port.

Vassilis Greek Taverna: Authentique restaurant grec offrant la meilleure cuisine maison en ville.

Le clou des événements mondains

du congrès sera certes le gala du président qui aura lieu le mardi soir 27 septembre. Certaines des activités prévues sont encore un secret bien gardé. Un dîner de gourmet y sera servi et l'hôte sera le capitaine George Vancouver. De jeunes instrumentistes, des danseurs chinois et quatre orchestres vous divertiront. Suivra la danse au son de la musique du Big Band.

Outre la tournée des restaurants, les hygiénistes feront une croisière dans le port de Vancouver, au cours de laquelle leur sera offert le déjeuner du président. Elles auront aussi une soirée à l'aquarium de Vancouver. Les déléguées de l'Association des assistantes dentaires participeront également à la visite des restaurants et à la soirée à l'aquarium. Elles auront leur déjeuner officiel le lundi et un petit déjeuner de travail le mercredi.

On s'attend à ce qu'un grand nombre de délégués participent au congrès de Vancouver. À leur intention, le Journal a préparé le petit "aide-mémoire" que voici.

Les groupes spécialisés

Les sections spécialisées de l'ADC et les groupes affiliés profiteront du congrès pour tenir leur réunion annuelle.

L'Association canadienne des orthodontistes se réunira les 24 et 26 septembre à l'hôtel Four Seasons, en L'Académie canadienne de périodontie dont la réunion aura lieu à l'hôtel Bayshore le 24-25 septembre.

L'Association des prosthodontistes du Canada et la Société canadienne des dentistes des services publics tiendront leur réunion respective le 25 septembre à l'hôtel Vancouver. Il en va de même du Collège international des dentistes.

VANCOUVER AU BOUT DES DOIGTS

Température: La température moyenne du mois de septembre à Vancouver est de 14 degrés Celsius.

Vêtement: En septembre, c'est l'automne à Vancouver et les délégués doivent s'habiller en conséquence. Il est recommandé aux femmes de s'apporter une veste d'automne et des robes ou tailleurs de laine légère. Hommes et femmes ne devraient pas oublier leur imperméable.

Restaurants: Vancouver offre toutes sortes de cuisines, y compris une grande variété de fruits de mer. Outre la tournée des restaurants, les délégués auront un vaste choix: cuisine grecque, japonnaise, chinoise, ukrainienne, italienne, indonésienne, vietnamienne, hongroise, française, allemande, africaine ou autre.

LES HÔTELS DU CONGRÈS

Voici la liste des hôtels du centre-ville de Vancouver, où l'ADC a retenu des groupes de chambres pour les délégués. Pour connaître l'emplacement exact, consultez la carte, à la page 516.

HÔTEL	EMPLACEMENT
L'Hôtel Vancouver *	rue Robson
Le Hyatt Regency *	angle Burrard et Melville
Le Four Seasons	rue Howe
Le Georgia	rue Georgia
Le Bayshore	en retrait de la rue Georgia
Le Holiday Inn	rue Hastings Ouest
Le Holiday Inn	rue Broadway Ouest
Le Inn at Denman Place	rue Denman
Le Sandman Inn	rue Georgia
Le Sandman Inn	rue Howe
Le Miramar	entre les rues Thurlow et Butte
Le Century Plaza	rue Burrard
le Sheraton Plaza	12 ^e Avenue Ouest

* Le congrès aura ses bureaux dans ces deux hôtels.

L'Association canadienne de dentisterie restauratrice tiendra sa réunion annuelle du 22 au 24 septembre, juste avant le congrès de l'ADC, à l'hôtel Hyatt Regency et à l'hôtel Vancouver. L'Académie canadienne de prosthodontie se réunira aussi au même moment et dans les mêmes hôtels.

Le CDSPI (Régimes d'assurance des dentistes du Canada) se réunira le 25 septembre à l'hôtel Hyatt Regency.

MESSAGES URGENTS

Si des membres de votre famille ou de votre cabinet dentaire désirent vous communiquer un message urgent pendant que vous assisterez au Congrès de l'ADA à Vancouver, ils pourront vous atteindre en composant l'un des deux numéros suivants:

(604) 684-5875
(604) 684-5876

ACTIVITÉS SCIENTIFIQUES — CONGRÈS DE L'ADC

DATE	HEURES	SUJET	CONFÉRENCIER	GENRE	ENDROIT	AUDITOIRE
26 sept.	9 h à midi	La prothèse fixe	Ray Contino	Conférence	Salle de bal Pacific	Dentistes et techniciens
26 sept.	9 h à midi	L'occlusion	Norm Ferguson	Conférence	Salon British	Dentistes et techniciens
26 sept.	9 h à midi	Dentisterie judiciaire		Table ronde	Salle des conférences	Restreint
26 sept.	9 h à midi	Le contrôle de l'infection		Table ronde	Salon Vanc. Island	Ouvert à tous
26 sept.	10 h 45 à midi	Grieve Memorial Lecture	Allan Lowe	Conférence	Salon Waddington	Ouvert à tous
26 sept.	9h à midi	Maladies parodontiques	Collège royal des dentistes du Canada	Symposium	Social Suite	Ouvert à tous
26 sept.	14 h à 16 h 30	La prothèse fixe	Ray Contino	Conférence	Salle de bal Pacific	Dentistes et techniciens
26 sept.	14 h à	Le dentier	Charles Bolender	Conférence	Salon British	Dentistes et techniciens
26 sept.	14 h à 16 h 30	L'endodontie		Table ronde	Salle des conférences	Ouvert à tous
26 sept.	14 h à 16 h 30	La dentisterie restauratrice		Table ronde	Salon Waddington	Restreint
26 sept.	14 h à 16 h 30	Les lésions buccales	Bob Myall	Conférence	Salon Columbia	Ouvert à tous
26 sept.	13 h à 17 h	Maladies parodontiques	CRDC	Symposium	Social Suite	Ouvert à tous
27 sept.	9 h à midi	Santé ou embonpoint	Covert Bailey	Conférence	Salle de bal Pacific	Ouvert à tous
27 sept.	9 h à midi	La radiologie	Bill Collett	Conférence	Salon Vanc. Island	Restreint
27 sept.	9 h à 11 h 30	Dentisterie restauratrice	Dick Tucker	Conférence	Salon British	Dentistes et techniciens
27 sept.	9 h à midi	L'avenir de la médecine dentaire	M.L. Christianson	Table ronde	Salon Waddington	Ouvert à tous
27 sept.	9 h à midi	La parodontie		Table ronde	Social Suite	Ouvert à tous
27 sept.	9h à midi	L'abus de l'alcool et des stupéfiants		Conférence	Pièce 227	Ouvert à tous
27 sept.	14 h 30 à 17 h	Santé ou embonpoint	Covert Bailey	Conférence	Salle de bal Pacific	Ouvert à tous
27 sept.	14 h 30 à 17 h	L'occlusion		Table ronde	Salon Vanc. Island	Restreint
27 sept.	14 h 30 à 17 h	Le contrôle du cancer		Table ronde	Salle des conférences	Ouvert à tous
27 sept.	14 h 30 à 17 h	Photographie buccale	Clifford Freshe	Conférence	Salon Waddington	Ouvert à tous
27 sept.	14 h 30 à 17 h	La gestion du cabinet		Séance de formation	Social Suite	Ouvert à tous
27 sept.	14 h 30 à 17 h	Démonstrations cliniques		Cliniques	2 ^e étage	Ouvert à tous
28 sept.	9 h à midi	Parodontie	Bob Johnson	Conférence	Salon British	Ouvert à tous
28 sept.	9 h à midi	La prothèse fixe fixe		Table ronde	Salon Vanc. Island	Dentistes et techniciens

Activités scientifiques (suite)						
28 sept.	9 h à midi	La chirurgie buccale	Warren Mitchell et associés	Table ronde	Salle des conférences	Ouvert à tous
28 sept.	9 h à midi	La prothèse amovible		Table ronde	Salon Waddington	Dentistes et techniciens
28 sept.	9 h à midi	Les questions fiscales		Conférence	Salon Columbia	Ouvert à tous
28 sept.	9 h à midi	La gestion du cabinet		Séance de formation	Social Suite	Ouvert à tous
28 sept.	9 h à midi	Démonstrations cliniques		Clinique	2 ^e étage	Ouvert à tous
28 sept.	14 h à 16 h 30	La gestion du cabinet		Séance de formation	Social Suite	Restreint

* Toutes les séances ont lieu à l'hôtel Vancouver.

ACTIVITÉS SCIENTIFIQUES — ASSOCIATION DES HYGIÉNISTES DENTAIRES *

DATE	TITRE	CONFÉRENCIER	GENRE
26 sept.	L'asepsie: une question de responsabilité morale face à la confiance du public	Le Dr R.J. Whitacre	Conférence
26 sept.	Les pratiques d'hygiène dentaire au sein de la famille	Le Dr Heather Hagerman	Conférence
27 sept.	Mise à jour sur la thérapie au fluorure	Le Dr A.R. Volpe	Conférence
27 sept.	Le vêtement qui va de pair avec le milieu	Mme Edita Whipple	Conférence
27 sept.	Le conditionnement physique avant et après la grossesse	Mme Sue Hills	Conférence
27 sept.	Mise à jour sur la radiologie dentaire: les principes, les techniques et la protection contre la radiation	Le Dr W. Collett	conférence
27 sept.	Mise à jour sur les soins et les techniques d'hygiène buccale	Mme Karen Sipko	Conférence
28 sept.	Le cabinet dentaire: un milieu qui tue ou qui guérit?	Les Drs Ben Wong et Jack McKeen	Cours d'une journée

* Toutes les séances auront lieu à l'hôtel Four Seasons.

ACTIVITÉS SCIENTIFIQUES — ASSOCIATION CANADIENNE DES ASSISTANTES DENTAIRES *

DATE	TITRE	CONFÉRENCIER	GENRE
26 sept.	Comment reconnaître et comprendre la malformation des dents et des mâchoires	Le Dr R. Myall	Conférence
26 sept.	Il n'en tient qu'à moi que les choses se fassent	Marjorie Dimitri et Claudia Anderson	Conférence
27 sept.	Une nouvelle approche sur les façons de traiter les gens pour réussir dans la profession	Gary Little et Jack Allen	Conférence

Activités scientifiques (suite)

27 sept.	Mise à jour sur la radiologie dentaire: les principes, les techniques et la radiation	Le Dr W. Collett	Conférence
28 sept.	Planifier aujourd'hui la carrière de sa vie: une question d'équilibre	Diana Cawood	Conférence

* Toutes les séances auront lieu à l'hôtel Georgia.

Trois membres éminents de la profession seront honorés au Congrès de l'ADC

Lors de son Congrès annuel qui se tiendra à Vancouver du 25 au 28 septembre, l'Association dentaire canadienne rendra hommage à trois membres de la profession pour leur contribution remarquable à la dentisterie au Canada. Ce sont le Dr Douglas J. Yeo, doyen associé de la Faculté dentaire de l'Université de la Colombie-Britannique, le Dr William Miller de Vancouver, président de l'ADC en 1961-1962, et le Dr John Frederick Reid de Vancouver également, président de l'ADC en 1974-1975.

Le Dr Yeo recevra la récompense pour service éminent et ses deux confrères seront nommés membres honoraires de l'ADC.

Le Dr William Miller

Toujours gaillard à 83 ans, le Dr Miller a été, en dentisterie, une source d'inspiration et a fait preuve de qualités de chef en occupant plusieurs postes à l'Association dentaire canadienne ainsi dans sa province, la Colombie-Britannique.

Né en Australie le 27 juin 1900, le Dr Miller a immigré en Amérique du Nord et reçu un diplôme en dentisterie à l'Université de l'Orégon en 1926.

Comme il aimait le Canada, il vint s'y établir et, déjà en 1933, il devenait le président de la Société dentaire de Vancouver et de la région. Plus tard, il était nommé membre permanent.

Remarqué pour ses qualités de chef et sans cesse préoccupé du bien-être de ses collègues, il fut nommé président du Collège des chirurgiens dentistes de la Colombie-Britannique

pour deux mandats consécutifs, de 1955 à 1957.

Plus tôt, soit en 1949, il avait été nommé membre du Collège international des dentistes et, en 1954, membre du Bureau national d'examen dentaire du Canada.

De 1956 à 1963, l'Association dentaire canadienne bénéficiait des services du Dr Miller en tant que membre du Conseil d'administration et du Conseil exécutif. En 1961-1962, il occupait la présidence et, l'année suivante, le poste de président sortant.

Notons qu'en 1952, le Dr Miller avait agi comme président général du Congrès du cinquantième anniversaire de l'ADC tenu à Vancouver.

Une carrière de 54 ans

En octobre 1981, le Dr Miller prenait sa retraite après avoir exercé la dentisterie à Vancouver pendant 54 ans.

Bien qu'il ait participé à plusieurs organismes dentaires durant tout ce temps, le Dr Miller n'a jamais oublié sa communauté. En tant qu'anglican pratiquant, il a souvent rempli le rôle de lecteur laïque et même, dit-on, celui de prêcheur!

Il a été membre du *Canadian Club* pendant 30 ans.

Le Dr John Frederick Reid

Le Dr Reid est un authentique citoyen de Vancouver, puisqu'il y est né le 29 mai 1919 et y a fait ses premières études.

En 1940, il a obtenu un diplôme du *Western College of Pharmacy*.

Durant la Deuxième Guerre mondiale, il s'est mis au service de sa patrie en se joignant au Service dentaire des Forces armées canadiennes.

Après la démobilisation en 1945, il s'est inscrit à l'Université McGill, à Montréal, et y a été diplômé en dentisterie en 1950.

De retour à Vancouver, le Dr Reid y a établi sa pratique et, très bientôt, il se signalait comme un chef auprès du Collège des chirurgiens dentistes de la Colombie-Britannique. Il en devint directeur et fit partie du Comité exécutif en 1962. De 1966 à 1968, il présidait le Comité des auxiliaires dentaires (qui prépare au diplôme d'assistante dentaire agréée en Colombie-Britannique).

En 1968-1969, il occupait la présidence du Collège.

À la même époque, le Dr Reid faisait partie du Comité d'étude fédéral Wells des auxiliaires dentaires. Ce fut alors qu'il se joignit à l'Association dentaire canadienne en tant que membre du Comité des services dentaires (maintenant le Conseil des soins de santé). De 1968 à 1976, il fit partie du Conseil d'administration et, de 1972 à 1976, du Conseil exécutif, occupant la présidence en 1974-1975.

En 1972, le Dr Reid était nommé membre du Collège international des dentistes et, en 1980, membre du Conseil d'administration du Fonds canadien pour l'enseignement dentaire.

Au service de la communauté

Malgré toutes ses occupations professionnelles, le Dr Reid n'a jamais

négligé sa communauté. Ainsi, en 1970-1971, il agissait comme gouverneur régional pour *Gyro Clubs International*.

De plus, il joue au golf, aime jardiner et est photographe amateur.

Le Dr Yeo

Le Dr Yeo, co-doyen et directeur du Département de la dentisterie préventive et communautaire de l'Université de la Colombie-Britannique, est né à Regina, en Saskatchewan, en 1924.

Diplômé de la Faculté dentaire de l'Université de Toronto en 1951, il a poursuivi ses études à l'Université du Michigan où il a obtenu un MPH en 1953.

Membre de l'ADC pendant de nombreuses années, il a fait partie de plusieurs conseils et comités, tels les Comités des affaires étudiantes et des politiques d'enquête et le Conseil de l'hygiène publique. De plus, il a été membre et président du Conseil de l'éducation.

C'est en 1951-1952 que le Dr Yeo a commencé à s'intéresser activement à la dentisterie communautaire à Prince George, en Colombie-Britannique. Il était alors directeur du *Cariboo Health Unit*. De 1953 à 1955, il agissait comme consultant dentaire régional de Fraser Valley et, de 1955 à 1964, il occupait la direction des Services d'hygiène dentaire du centre urbain de Vancouver.

Par ailleurs, il a fait partie du Conseil exécutif de l'Association canadienne d'hygiène publique dans la division de la Colombie-Britannique et a été vice-président du Collège des chirurgiens dentistes de cette province.

En 1964, il entreprenait une nouvelle carrière alors qu'il était nommé professeur adjoint et directeur de la Santé dentaire publique et communautaire à la Faculté dentaire de l'Université de la Colombie-Britannique. En 1970, il était promu professeur et, en 1972, sous-doyen de la Faculté. En 1977, il était nommé

doyen suppléant et, l'année suivante, co-doyen.

Par ailleurs, le Dr Yeo a été secrétaire général du Collège des chirurgiens dentistes de la Colombie-Britannique, un membre du Conseil exécutif de l'Association canadienne des Facultés dentaires et du Bureau national d'examen dentaire du Canada, ainsi qu'un examinateur pour la Division de la Santé publique du Collège royal des dentistes du Canada et de l'Association canadienne des sciences judiciaires.

Le Dr Yeo a également été vice-président de la Division canadienne du Collège international des dentistes et en a été nommé président en 1983.

Il est membre du Collège international des dentistes depuis 1973 et du Collège royal des dentistes du Canada depuis 1975. Il fait aussi partie de l'Académie Pierre Fauchard et il a mérité de la Société canadienne de la Croix-Rouge un certificat pour service éminent. Enfin, il a rempli le rôle de consultant dentaire pour la Jeunesse de la Croix-Rouge.

Le Dr C.A. McCulloch récipiendaire du Prix FCRD

Le Dr Christopher Allan McCulloch — BSc, DDS, PhD, FRCD(C) — d'Islington (Toronto, Ontario) se verra attribuer le Prix du Fonds canadien pour la recherche dentaire pour l'année 1983.

Le Dr McCulloch a effectué ses recherches à la Faculté dentaire de l'Université de Toronto et a eu comme tuteurs les Drs A.H. Melcher et Donald M. Brunette.

Il l'a emporté sur quatre autres candidats pour son travail intitulé: "Migration des cellules dans les ligaments parodontaires des souris." Le Dr McCulloch a étudié les origines et la cinétique des cellules de reproduction.

Originaire de Winnipeg, le Dr McCulloch est un spécialiste en parodontie et exerce à Hamilton, en Ontario.



Le Dr C.A. McCulloch

Présentement, il continue ses recherches post-doctorales au Département d'anatomie de l'École médicale de l'Université de Toronto où, en

1982, il a obtenu un doctorat pour des recherches en biologie.

Son but est d'obtenir des subventions pour un projet de recherche de cinq ans touchant la pathogenèse parodontaire. Il a demandé une bourse du Conseil de recherches médicales du Canada.

Le Dr McCulloch recevra 1000\$ et une plaque durant le Congrès de l'ADC, à Vancouver.

Quant au Prix de l'institution attribué à la faculté dentaire où le lauréat a effectué ses recherches, il sera présenté au doyen de la faculté dentaire de l'Université de Toronto, le Dr Richard Ten Cate ou à son représentant.

Le Prix FCRD est attribué chaque année pour encourager la recherche en dentisterie.

Les expositions techniques du congrès: les avantages à en tirer

Pourquoi visiter les expositions techniques qui seront présentées au Congrès de l'Association dentaire canadienne à Vancouver?

Les meilleures réponses à cette question sont sans doute celles qu'a fournies William H. Campbell, directeur de la commercialisation d'une importante firme internationale qui fabrique des produits dentaires, la *Pelton & Crane*, de Charlotte, en Caroline du Nord.

M. Campbell fait remarquer que "les congrès sont des occasions pour les trois partis du milieu dentaire, soit les fabricants, les marchands et les dentistes, de se réunir pour se mettre entièrement au courant de leurs intérêts communs. Sans ces occasions, la collaboration entre les trois partis serait considérablement moindre, mais grâce à elles, il est aisé de reconnaître les points de vue partagés de part et d'autre et, partant, d'établir des rapports plus satisfaisants et plus profitables pour tous.

"Bien entendu, quand on assiste à des expositions techniques, c'est principalement pour y découvrir de nouveaux produits. Ces expositions offrent tant aux marchands qu'aux dentistes une occasion de se renseigner sur les manières dont les fabricants conçoivent les nouveaux produits et les dernières inventions. Par le fait même sont satisfaits les besoins et comblées les lacunes des groupes dentaires locaux.

"Par ailleurs, les expositions techniques permettent aux dentistes de comparer les produits offerts. Il s'agit d'une occasion pratique tant pour les marchands que pour les dentistes d'examiner des produits semblables. Comme il est rare qu'une société marchande dispose de tous les produits qui sont sur le marché, les dentistes ont la chance d'élargir leurs horizons en voyant ce qui se fabrique ailleurs."

Le caractère même des expositions

est un point important, souligne M. Campbell.

"Souvent, nous nous rendons compte que le dentiste n'est pas très au fait de l'intention liée à la conception d'un appareil, de son fonctionnement mécanique ou des procédures précises qui ont été à l'origine de la mise au point d'un nouveau produit ou d'une nouvelle technique. Les expositions lui fournissent donc une occasion de se renseigner sur les éléments qui ont importé lors de leur élaboration.

Besoins particuliers

"Un autre point à considérer, ce sont les besoins particuliers et les équipements spéciaux. Il arrive souvent qu'aucun appareil sur le marché ne réponde à ce que recherche un dentiste. Celui-ci doit alors passer une commande spéciale afin que soit fabriqué l'objet désiré. Les expositions techniques lui offrent justement une occasion d'explorer les possibilités touchant les appareils faits sur mesure et de trouver une solution à son problème. C'est alors qu'il importe de pouvoir recourir à plusieurs fabricants. En effet, les produits désirés doivent être testés ou modifiés d'une certaine façon, ce qui exige alors des études et des examens très attentifs où l'on tienne compte de plusieurs facteurs comme la garanti et la sécurité.

"En outre, lors des expositions, les rencontres personnelles constituent un point important. Le dentiste, le marchand et le fabricant ont alors une occasion de se rencontrer et de se faire part de leurs préoccupations, de leurs lignes de conduite et de leurs besoins.

"Grâce aux discussions qu'ils ont, on peut trouver des solutions et créer des pièces d'équipement dont la précision aide à améliorer la qualité de la santé dentaire."

"Les expositions commerciales sont encore des occasions pour les fabricants de donner des conseils touchant l'entretien, le service et l'utilisation des appareils qu'ils vendent. Le représentant d'un fabricant pour un territoire donné recueille habituellement une mine de renseignements précieux qui ne se trouvent jamais dans les modes d'emploi et les directives pour l'installation et l'entretien des appareils. Ordinairement, ces renseignements se donnent lors de rencontres personnelles dans les expositions. Ils sont très utiles, puisque le dentiste apprend ainsi à mieux utiliser les pièces qu'il achète. Et comme il sait s'en servir à bon escient, il en est satisfait et celles-ci durent plus longtemps.

"Les expositions constituent aussi des endroits très commodes pour les fabricants et les marchands, puisqu'ils leur permettent de prendre des rendez-vous avec les dentistes. L'expérience a démontré qu'on peut résoudre de façon rapide et efficace plusieurs problèmes dans les congrès, à cause de la représentation qu'on y trouve et de l'occasion qu'on a de discuter les problèmes avec les trois partis intéressés.

Services possibles

"Lors des expositions, le fabricant peut expliquer quels sont les services que sa compagnie peut rendre. Dans plusieurs cas, chez le marchand, il n'est pas possible, faute de temps et d'espace, d'expliquer pleinement les services qu'offre une compagnie. C'est pourquoi les expositions sont des occasions idéales pour obtenir des renseignements complets à ce sujet.

"Elles sont encore d'excellentes occasions pour les démonstrations cliniques avec des appareils. Souvent, pour des techniques tout à fait particulières, ces démonstrations ne sont possibles qu'avec un appareil spécial.

Suite à la page suivante

Tenue de la Semaine nationale des universités en octobre

L'automne prochain, toutes les universités du Canada participeront à plusieurs festivités pour souligner les réalisations canadiennes dans l'enseignement supérieur. Du 2 au 8 octobre, ce sera la Semaine nationale des universités (SNU).

Les festivités resteront modestes et le thème de la semaine sera lié à l'avenir en général. L'objectif sera de démontrer que les universités canadiennes jouent un rôle essentiel dans le développement local, régional et national. On voudra souligner la valeur de l'enseignement, du savoir, de la recherche ainsi que des divers services culturels et publics, faisant valoir particulièrement les contributions des universités au monde des affaires, à l'industrie et à la vie économique du Canada.

La SNU est une initiative conjointe de l'Association des universités et des

collèges du Canada, du Conseil des présidents des universités de l'Ouest canadien, du Conseil des universités de l'Ontario, de la Conférence des recteurs et des directeurs des universités du Québec et de l'Association des universités des Maritimes.

Un comité national, composé de représentants des cinq organismes, a été formé pour coordonner les activités et aider chaque institution à planifier les festivités. Il est présidé par le directeur de l'Université McGill, David Johnston, et le président désigné de l'Université de la Colombie-Britannique, George Pedersen.

Le Dr Johnston a déclaré: "Nous espérons que la SNU rendra les Canadiens fiers des remarquables réalisations de nos universités. Le bien-être futur de notre pays est indissolublement lié à l'essor de nos institutions d'enseignement supérieur. Le progrès

économique et social du Canada au cours des dernières décennies a été dû en grande partie au travail entrepris dans les universités. Nous voulons rappeler au public que les universités sont une part essentielle de notre pays."

La plupart des festivités de la SNU auront lieu sur le campus des universités. On réduira les dépenses en faisant coïncider avec cette semaine des expositions, des conférences publiques et des journées publiques ainsi que d'autres activités qui, normalement, ont lieu à d'autres moments. Les quatre associations universitaires régionales et provinciales mentionnées ci-dessus coordonneront des activités communes à l'intérieur de leurs territoires respectifs et, de concert avec l'Association des universités et des collèges du Canada, projeteront des activités pour tout le Canada.

Les expositions (suite)

Bien entendu, la démonstration se concentre alors sur la technique expliquée et peu de renseignements sont donnés touchant l'appareil utilisé. Après la démonstration, cependant, les membres de la profession dentaire peuvent s'approcher de l'appareil et l'examiner de près.

"Durant les expositions, on peut aussi procéder à la formation de certains membres du personnel dentaire. Ceux-ci ont une occasion de se familiariser avec certains appareils, le fabricant ou le marchand pouvant leur en expliquer le fonctionnement et leur démontrer des techniques. De cette manière, les besoins et les désirs de l'équipe dentaire sont satisfaits.

"Le dernier point mais non le moindre," observe M. Campbell, "les expositions techniques permettent aux membres du milieu dentaire de partager une expérience commune et de développer un sentiment de cama-

raderie. Elles offrent une occasion d'établir et d'entretenir des liens sociaux et professionnels solides qui donnent à notre industrie force et stimulant. Ces liens se maintiennent souvent grâce à ces manifestations

et, à mon avis, ils entrent pour une large part dans la satisfaction générale que nous, en tant que membres de la communauté dentaire, éprouvons dans notre travail.

William H. Campbell

Régime d'épargne-retraite de l'ADC

Les valeurs respectives du Régime d'épargne-retraite de l'Association Dentaire Canadienne étaient les suivantes au 30 juin 1983.

<i>Fonds d'actions ordinaires</i>	\$72.70502
<i>Fonds à revenu fixe</i>	\$36.35542
<i>Fonds garanti</i>	\$26.31719
<i>Fonds de placement</i>	\$15.00716

L'avoir total (valeur marchande) du régime s'élevait à \$37,060,973.

Au 31 mai 1983, les chiffres du mois précédent étaient les suivants:

<i>Fonds d'actions ordinaires</i>	\$72.9715
<i>Fonds à revenu fixe</i>	\$36.0797

<i>Fonds garanti</i>	\$26.1882
<i>équilibré</i>	\$14.3765

L'avoir total (valeur marchande) du régime s'élevait à \$36,762,684.

Pour de plus amples renseignements, veuillez écrire à l'adresse suivante: Canadian Dental Service Plans Inc., Ste. 600, 2 Lansing Square, Willowdale, Ontario M2J 4Z3, ou appeler le service de renseignements du CDSPI en composant 1-800-268-5418 (appel sans frais pour l'Ouest canadien, les Maritimes et l'Ontario où le code est 807 seulement), 1-800-268-3411. (appel sans frais pour le Québec et l'Ontario sauf où le code est 807), et 497 7117 (Région métropolitaine de Toronto).

En bref —

Le ministère de la Santé du Nouveau-Brunswick a restreint son programme des services de santé dentaire qui assurait des soins dentaires aux travailleurs défavorisés de la province.

Selon le Dr Jack Thompson, directeur administratif de la Société dentaire du Nouveau-Brunswick, environ 6 000 personnes seront touchées par les restrictions.

Le plus dur pour la population, d'observer le Dr Thompson, ce sera la fermeture de trois cliniques qui sont présentement ouvertes à Frédéricton, Moncton et Saint-Jean. Ces cliniques doivent fermer en septembre. De plus, on retirera la clinique mobile et on n'accordera plus de bourses pour permettre à des dentistes d'aller s'établir dans des régions défavorisées.

La Société dentaire du Nouveau-Brunswick, a noté le Dr Thompson, fera des pressions auprès du gouvernement provincial pour obtenir au moins que les cliniques urbaines restent ouvertes.

Selon l'Ordre des dentistes du Québec, le Mois national de la santé dentaire a connu un énorme succès au Québec cette année.

Un grand nombre de dentistes et d'organismes dentaires, tant régionaux que locaux, ont pris part à la campagne 1983. La revue québécoise *Vivre* a publié un reportage de huit pages sur la santé dentaire dans son numéro d'avril.

Le président de l'Ordre des dentistes du Québec, le Dr Marc Boucher, a accordé plus de dix interviews aux médias du Québec et, à travers la province, la presse, la radio et la télévision ont accordé une attention toute particulière à la campagne du Mois national de la santé dentaire.

Les postes français et anglais de radio et de télévision de toute la pro-

vince ont diffusé de nombreux messages publicitaires sur la santé dentaire.

En juin dernier, dans le cadre d'une campagne pour promouvoir son zoo, la ville de Toronto y a tenu une journée du sourire.

Le Dr Jack Cottrell, dentiste de Port Perry (Ontario), et d'autres membres de l'Association dentaire de Durham, Ont., le 25 juin, préparé une exposition dentaire dans la zone des prairies du zoo.

Assisté de deux hygiénistes dentaires, le Dr Cottrell y a distribué des renseignements sur la santé dentaire ainsi que des brosses à dents et du dentifrice fournis par *Procter and Gamble*.

Pour accueillir les enfants et leur remettre des macarons incitant à une bonne hygiène dentaire, le Dr Cottrell avait encore l'aide de la molaire *Murphy* qui, en Ontario, évoque une bonne santé dentaire.

Le même jour, le zoo a exposé des dents d'animaux dans ses pavillons représentant l'Afrique, l'Inde et la Malaisie, les Amériques, et l'Australie. On pouvait aussi voir des dents et des crânes de mammifères, de reptiles, de poissons et d'oiseaux. Des guides bénévoles étaient présents pour répondre aux questions touchant les dents des animaux.

Page couverture

La couverture du présent numéro montre la ville de Vancouver où aura lieu le Congrès de l'ADC cette année.

Le Journal tient à remercier le *Greater Vancouver Visitors and Convention Bureau* qui lui a gracieusement fourni cette photographie panoramique de Vancouver, de son front de mer et des spectaculaires Rocheuses qui lui servent de toile de fond.

À l'occasion de l'assemblée annuelle de l'Association américaine des orthodontistes, tenue du 1^{er} au 4 mai 1983, le Dr Daniel James Sullivan, de Winnipeg, s'est vu décerner un certificat pour mérite exceptionnel.

Le Dr Sullivan s'est mérité cet honneur pour ses recherches en orthodontie. Praticien privé à Winnipeg, il a obtenu son diplôme en orthodontie à l'Université du Manitoba en 1982.

Le Collège des chirurgiens dentistes de la Saskatchewan tente de modifier le règlement touchant les diplômés des écoles dentaires américaines désirant exercer dans la province.

Selon le Dr George Peacock, secrétaire-trésorier et registraire du collège, celui-ci est en pourparlers avec le ministre de la Santé pour faire apporter des modifications au règlement afin d'exiger que tous les diplômés des écoles dentaires américaines détiennent un certificat du Bureau national d'examen dentaire du Canada avant de pouvoir exercer en Saskatchewan.

Le collège tente depuis plusieurs années de faire amender le règlement et, cette fois, pense le Dr Peacock, on espère y réussir grâce au nouveau gouvernement.

"La Saskatchewan est la seule province à ne pas exiger que les diplômés dentaires américains aient un certificat du BNEDC pour avoir le droit d'exercer dans la province. Nous voulons changer cet état de fait et faire comme le reste du monde," a commenté le Dr Peacock.

Le Conseil exécutif du Collège des chirurgiens dentistes de la Colombie-Britannique a récemment été réélu par acclamation pour le mandat 1983-1984.

Le président en est le Dr R.J. Markey, de Richmond; les vice-présidents, les Drs John Silver et Serge Vanry, tous deux de Vancouver; et le trésorier, le Dr Jack Penzer, de Langley.

De plus, le Collège a également tenu son assemblée annuelle en mai, prenant alors des décisions importantes.

Ainsi, il a approuvé certains amendements à la Loi sur les dentistes de la Colombie-Britannique et les présentera au gouvernement provincial pour les discuter. On a aussi décidé de

soumettre la question de la publicité professionnelle par un dentiste au Comité de l'éthique du Collège.

Le directeur administratif du Collège, Ken Croft, a déclaré que le Conseil exécutif a pris connaissance d'un rapport sur le Congrès que l'ADC tiendra à Vancouver cette année.

"Il nous fera plaisir d'accueillir tous les dentistes du Canada à Vancouver en septembre," a-t-il ajouté au nom du Conseil exécutif du Collège.

En juin, la ville de Kelowna, en Colombie-Britannique, a mérité une plaque pour avoir fluoruré ses eaux potables pendant 25 ans.

La plaque a été présentée au nom de plusieurs organismes provinciaux qui s'intéressent à l'hygiène publique, tels le *South Okanagan-Similkameen Union Board of Health*, les Sociétés dentaire et médicale de Kelowna et du district, la division de l'Association canadienne d'hygiène publique pour la Colombie-Britannique et le chapitre de Kelowna de l'Association des infirmières diplômées de la Colombie-Britannique.

Le 9 décembre 1954, les citoyens de Kelowna ont voté 699 contre 581 en faveur de la fluoruration. Une usine a donc été construite et celle-ci a été inaugurée le 1^{er} octobre 1956.

Kelowna a été la troisième ville de la Colombie-Britannique à adopter la fluoruration. Les deux premières ont été Prince George et Smithers.

L'Association dentaire canadienne est à la recherche d'un nouveau directeur de l'Agrément.

Les intéressés doivent soumettre leur candidature pour le 15 septembre 1983, à M. Hubert Drouin, directeur général de l'Association dentaire canadienne, 1815, promenade Alta Vista, Ottawa, Ontario, K1G 3Y6.

Pour plus de renseignements sur le poste en question, voir page 587.

Le 72^{ième} Congrès dentaire mondial annuel de la FDI aura lieu à Helsinki, en Finlande, du 24 au 31 août 1984.

Les principaux sujets du programme scientifique seront: le changement des habitudes touchant l'hygiène buccale et les demandes de soins, le changement des habitudes touchant le diagnostic et les traitements, le sucre et les édulcorants en rapport avec la santé bucco-dentaire.

Le Comité scientifique finlandais tiendra deux symposiums: le symposium international sur les édulcorants, et les soins parodontaux à la manière scandinave.

Durant la tenue du Congrès, il y aura une exposition commerciale. De plus, le programme social comprendra des voyages qu'on pourra effectuer avant ou après le Congrès, des concerts et d'autres activités culturelles, et des excursions aux principaux sites touristiques de la Finlande.

L'Association dentaire de la Californie appuie un projet de loi qui permettrait l'établissement de services d'orientation à but non lucratif en Californie.

D'après une déclaration que le Procureur général de l'État a faite en 1982, "tous les services d'orientation y sont illégaux."

La nouvelle loi permettrait aux services d'orientation d'exercer légalement, à la condition d'être gérés par un organisme à but non lucratif. Ceux-ci pourraient orienter les patients à qui de droit et leurs membres devraient compter des personnes possédant un certificat en vertu du Code californien de la santé et de la sûreté.

Un autre projet de loi déposé par l'*American Dental Council Inc.*, un important service d'orientation établi en Californie et au Texas, vise à obtenir le droit d'exploiter des services d'orientation rentables.

Ce deuxième projet de loi n'a pas reçu l'appui de l'Association dentaire de la Californie.

Le Musée régional pour enfants de London, en Ontario, est le premier du genre au Canada. Et durant la Semaine de la santé dentaire tenue dans la région, les enfants ont pu se renseigner sur la dentisterie.

Le musée comprend diverses galeries et les expositions sont toutes conçues de manière à obtenir la participation des jeunes visiteurs. L'une des galeries, par exemple, représente une rue ordinaire: l'enfant peut y apprendre comment on construit une maison et ce qui se trouve sous une plaque d'égout. C'est dans cette galerie que, durant la Semaine de la santé dentaire, on a installé le cabinet du Dr Hap E. Smile (Happy Smile — heureux sourire).

Le *Middlesex London Health Unit* a fourni un équipement dentaire portatif pour le cabinet. Les enfants ont pu y manipuler des outils manuels, faire gicler une seringue, observer et polir les dents et les obturations d'un mannequin. Près du cabinet, il y avait une exposition d'appareils de radiographie dentaire de divers modèles; on expliquait aux enfants comment et pourquoi on les utilise.

Par ailleurs, on avait converti l'auditorium du musée en un "dentorium" contenant quatre kiosques dentaires: au premier, le visiteur pouvait se faire examiner les gencives; au second, il pouvait compter ses dents; au troisième, il se renseignait sur les matériaux de scellement; et au dernier, il trouvait des casse-tête avec la molaire *Murphy* ainsi qu'un jeu semblable à celui des serpents et échelles intitulé *Up the toothbrush*.

À l'entrée du musée, les enfants devaient remplir un questionnaire et recevaient une brosse à dents et un collant de la molaire *Murphy*.

La direction du musée espère que, très bientôt, on y installera un cabinet dentaire permanent.



Canadian Dentists' Insurance Program

Good News!

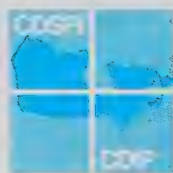
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Premiums for Life Insurance through the Canadian Dentists' Insurance Program are already among the lowest rates available anywhere. Now, if you haven't smoked cigarettes for the last 12 months, you can get even lower rates. Depending on your age, your premium rates will be reduced by up to 15% effective January 1, 1984.

Annual Premium per \$10,000 Coverage

Age nearest to Jan. 1	Smokers	Non-Smokers
Less than 25	\$ 8.56	\$ 8.56
25-29	9.68	9.48
30-34	11.40	10.96
35-39	14.32	13.48
40-44	20.76	19.12
45-49	33.56	30.20
50-54	53.64	47.20
55-59	67.00	56.96
60-64	107.68	99.60
65-69	226.80	226.80

Full details of these offers are being mailed to current participants in the CDIP Life Insurance program. You should receive your information kit by Sept. 30. If you are not a participant, call CDSPI's Central Information Service for an application form.

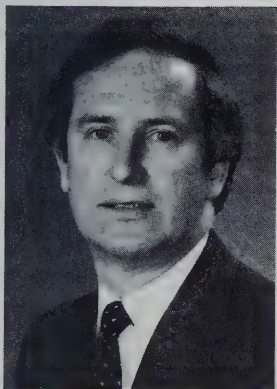


Canadian Dentists' Insurance Program

For Personal Insurance Service or for information on any insurance problem, call CDSPI's Central Information Service anytime, toll-free.

1-800-268-5418 Western Canada, Atlantic Canada
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1-800-268-3411 Quebec and Ontario, **except** for
Area Code 807
497-7117 Metro Toronto

AIDS and its significance to dentistry



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SUMMARY

Acquired Immune Deficiency Syndrome is a new disease with a high mortality rate and high occurrence among male homosexuals and I.V. drug abusers. The disease has a mode of transmission similar to Hepatitis B, associated oral signs, and perhaps may cause alterations in the development and treatment of dental disease.

Dentists as members of the health care team are concerned about the relationship between systemic disease and the practice of dentistry. This report is an analysis of the current information on the new disease concept, "acquired immune deficiency syndrome" (AIDS), and of its significance to the dental profession.

HISTORY

During the period October 1980 to May 1981 the Centers for Disease Control in the United States became aware of a peculiar combination of diseases occurring in otherwise healthy young adults. It was reported that five homosexual males living in Los Angeles but unknown to

SOMMAIRE

Le syndrome de l'immuno-déficience acquise est une nouvelle maladie dont le taux de mortalité est très élevé et qui se retrouve surtout parmi les homosexuels et les consommateurs de drogue par voie intraveineuse. La maladie se transmet de façon semblable à l'hépatite virale B et est associée à des symptômes buccaux. Il se peut qu'elle entraîne des modifications dans le progrès des maladies dentaires et de leur traitement.

each other, had a rare form of pneumonia (pneumocystis carinii), complicated by two opportunistic infections, cytomegalic virus infection and candidal mucosal infection⁽¹⁾. Two of the patients died within the reporting period. By July 1981 an additional 26 male homosexuals living in New York and Los Angeles had been diagnosed as having an unusual form of cancer, Kaposi's sarcoma, in combination with pneumocystis pneumonia⁽²⁾. Within two years of the diagnosis of the sarcoma eight of the patients were dead. This unusual combination of rare diseases in otherwise healthy adults is better appreciated after reviewing some known features of Kaposi's sarcoma and pneumocystis carinii.

Kaposi's Sarcoma

Kaposi's sarcoma is considered to be a relatively rare (0.02 — 0.06 per 100,000)⁽²⁾ malignant neoplasm of elderly men⁽³⁾. The disease manifests as multiple vascular nodules of the skin and other organs, and has a chronic clinical course with a mean survival time of 8-13 years⁽³⁾. Two distinct variations to this clinical profile exist. In equatorial Africa, Kaposi's sarcoma is not uncommon in children and young adults where it accounts for 9 per cent of all cancers⁽⁴⁾. In addition the disease has an increased incidence among recipients of renal transplants⁽⁵⁾, and in patients on immunosuppressive therapy⁽⁶⁾.

Pneumocystis Carinii

Pneumocystis carinii is an uncommon disease usually present only in immunosuppressed patients and thought to be caused by a protozoan whose life cycle and natural reservoir remains unknown⁽⁷⁾. It has a 25-50 per cent mortality rate despite vigorous anti-microbial treatment⁽⁸⁾. The presence of the disease is confirmed by a lung biopsy.

GENERAL FEATURES

The patients in these reports of Kaposi's sarcoma and pneumocystis pneumonia had a history of fever, weight loss, general malaise and lymphadenopathy, lasting from a few weeks to several months prior to the onset of the skin lesions of the sarcoma or the respiratory distress associated with the pneumonia⁽⁷⁾. The occurrence of rare diseases with a remarkably high fatality rate in a particular segment of the population must be considered unusual, and is suggestive of a common causative factor, possibly some form of immunosuppression⁽⁹⁾. If immune deficiency is present, then other opportunistic infections would be anticipated in the group of patients under study.

Opportunistic infections

All of the five patients in Los Angeles had cytomegalic virus infection, and three of them had oral candidiasis⁽¹⁾. These are recognized opportunistic infections; in fact there is some evidence to suggest that the cytomegalic virus can induce alterations of *in vitro* cellular immune functions⁽¹⁰⁾. Two reports^(11,12) have indicated that homosexual men have a high prevalence of cytomegalic virus infections, and that seminal fluid may be an important route for the virus transmission. Among the 26 males with the confirmed diagnosis of Kaposi's sarcoma, 12 had serological evidence of past or present cytomegalic virus infection, and one patient had severe recurrent herpes simplex infection complicated by extensive candidiasis and cryptococcal meningitis⁽²⁾.

The Centers for Disease Control were convinced that the above information suggested an unusual and previously unknown relationship between a particular segment of the population and two rare diseases, Kaposi's sarcoma and pneumocystitis pneumonia. Therefore, in June 1981 a task force was commissioned to perform laboratory and epidemiologic investigations of these two conditions occurring in patients without obvious underlying diseases.

TASK FORCE FINDINGS

During the period June 1st 1981 to March 24th, 1982, a total of 290 cases of Kaposi's sarcoma, pneumocystis carinii or other serious opportunistic infections were reported to the Task Force⁽⁷⁾. Only 10 of the 290 patients were females, and 85 per cent of the men admitted to

homosexual or bisexual preferences. The age range was 15-58 years, with a mean of 35 years, however 80 per cent of the patients were between 25 and 44 years of age.

Kaposi's sarcoma was the major disease in 113 patients, of whom 22 died during the reporting period. Pneumocystis pneumonia was the major disease in 128 patients, with 66 dying during the period of study. Kaposi's sarcoma and pneumocystis pneumonia were combined in 27 patients among whom 16 died. Serious opportunistic infections other than Kaposi's sarcoma and pneumocystis carinii were present in 22 patients with a 50 per cent fatality rate. These infections included herpes simplex infection and disseminated candidiasis. Among the 268 patients who had Kaposi's sarcoma, pneumocystis pneumonia or a combination of both, there were 39 reports of cytomegalic virus infection and 83 reports of oral thrush or gastro-intestinal candidiasis. It is important to stress that of the 290 patients, 115 i.e. 40 per cent, were dead at the end of the study period⁽⁷⁾.

An interesting aspect of the investigation was that it was not concerned solely with homosexual males. Among the patients were 10 females and 27 heterosexual males, and 15 males whose sexual preferences were not determined. However, of these 52 patients 56 per cent were reported to be I.V. drug abusers (heroin, methadone, alcohol or cocaine). A previous report has suggested that opiate addiction is associated with a decrease of cellular immunity *in vitro*⁽¹³⁾. A 1983 report of 16 prisoners with pneumocystis carinii has emphasized the relationship between I.V. drug abuse and pneumocystis pneumonia. All of the prisoners were chronic I.V. drug abusers prior to their incarceration. Two admitted to occasional use of I.V. drugs while in prison, and two were known to be homosexuals. The report concluded that most probably the prisoners were exposed to a blood-borne agent prior to their confinement⁽¹⁴⁾.

Additional proof for the existence of an infectious agent is contained in a report describing immunodeficiency developing in female sexual partners of males with Kaposi's sarcoma and pneumocystis carinii⁽¹⁵⁾. The report further states that healthy male drug abusers with no clinical evidence of immunodeficiency may be carriers of an agent which infects their sexual partners.

Another aspect of this apparently acquired immune deficient state was described in July 1982 when it was reported that severe opportunistic infections were present among 32 Haitian residents of the U.S.⁽¹⁶⁾. The immunologic findings and high fatality rates were similar to those reported among homosexual men^(1,2) and I.V. drug abusers⁽¹⁴⁾, however none of the male Haitians were homosexuals and as a group they had a low rate of I.V. drug abuse. The reason for this apparent propensity for immunodeficiency among the Haitians is not known, however cases of disseminated Kaposi's sarcoma have been reported in Haiti, and recent Haitian immigrants have a high prevalence of tuberculosis⁽¹⁶⁾.

An additional report in July 1982 demonstrated a relationship between Hemophilia A and pneumocystis pneumonia⁽¹⁷⁾. The three patients involved had no other diagnosed diseases, were not on immunosuppressive therapy but had received numerous injections of blood products to counteract their Hemophilia. The report suggests that the hemophiliacs were infected by a blood-borne agent⁽¹⁷⁾.

DEFINITION OF AIDS

As a result of these reports and other investigations, the Task Force in September 1982 decided that there was sufficient proof to consider the occurrence of Kaposi's sarcoma, pneumocystis carinii, and other opportunistic infections in previously healthy persons, as part of a disease process involving an acquired immune deficiency syndrome, or AIDS.

A case of AIDS is defined as a disease at least moderately predictive of a defect in cell-mediated immunity, occurring in a person with no known cause for diminished resistance to that disease⁽¹⁸⁾. Such diseases include Kaposi's sarcoma, pneumocystis pneumonia and serious opportunistic infections due to; candidiasis, aspergillosis, cytomegalovirus, herpes simplex virus, nocardiosis and toxoplasmosis. It is important to appreciate that the full spectrum of AIDS manifestations may range from the absence of symptoms (despite laboratory evidence of immune deficiency), to non-specific symptoms (fever, weight loss, generalized lymphadenopathy), to specific diseases that may be associated with immune deficiencies (tuberculosis, oral candidiasis, herpes zoster), to malignant neoplasms that may cause or result from immunodeficiency⁽¹⁸⁾.

The study of AIDS patients indicated that;

- i — The incidence of AIDS is increasing rapidly
- ii — The eventual case mortality rate may be greater than the 41 per cent recorded in the study.
- iii — Risk factors are, male homosexuality or bisexuality, intravenous drug abuse with no homosexual experiences, Haitians with no history of homosexuality or drug abuse, and possibly hemophilia A.

FACTORS CAUSING AIDS

Four hypotheses have been advanced to explain the presence of AIDS especially among homosexual males. The first deals with the previously discussed relationship between cytomegalic virus infection, homosexuality and cellular immune deficiencies^(10,11,12). It suggests that the cytomegalic virus is responsible for the abnormalities in immunity. The second hypothesis is related to the frequent use of nitrate inhalants (poppers) among homosexuals. This life-style habit may be the cause of immunosuppression⁽⁷⁾. The third is related to the fact that

homosexuals have an increased prevalence of many different infections⁽¹⁹⁾, which may overload their immune systems resulting in a breakdown of immune defence mechanisms. Finally it has been postulated that, an as yet undescribed "new" agent, hybrid or mutation of a known organism, triggers the immune deficiency⁽⁷⁾. The presence of AIDS among male homosexuals, drug addicts, prisoners, hemophiliacs and in the sexual partners of such patients, suggests a mode of infection similar to that of Hepatitis B; in fact four out of the five original Los Angeles patients had evidence of previous Hepatitis B infections. Therefore, the routes of infection might be by sexual and/or parenteral transmission⁽⁷⁾.

AIDS AND DENTISTRY

The above review of the current information regarding AIDS contains a number of aspects which are pertinent to the practice of dentistry. These topics will be discussed under the headings of epidemiologic features, diagnostic and treatment implications, and preventive measures.

Epidemiologic features

The Kinsey Report suggested that between 8 — 18 per cent of males were homosexuals or bisexual⁽²⁰⁾. If a conservative estimate of 10 per cent is employed then approximately 1.2 million Canadian males will have these sexual preferences, and be at a high risk for acquiring AIDS. It is to be expected that a considerable number of such males will seek dental treatment for hygienic and cosmetic reasons. Drug addicts and their sexual partners, prisoners and hemophiliacs also belong to the high risk group subject to AIDS. The remarkable similarity between the high risk groups for AIDS and Hepatitis B raises the question as to what degree dentists should investigate the medical, social, and sexual histories of their patients?

Diagnostic and treatment implications

Oral thrush or acute pseudomembranous candidiasis is not a disease of otherwise healthy young adults, and must be treated with suspicion when diagnosed in such persons, as approximately 30 per cent of AIDS patients present with oral candidiasis. In addition progressive mucocutaneous herpes simplex infections⁽⁷⁾ and herpes zoster infections⁽¹⁸⁾ have been reported as opportunistic infections in AIDS patients. A patient in the high risk group with any of these diseases, complaining of weight loss, general malaise and fever should be considered as having AIDS until proven otherwise. Thus an appreciation of the oral signs and general symptoms may be important in diagnosing the syndrome.

The nature of dental disease among AIDS patients has not been reported, and any comments on this subject are speculative. However, the Task Force on AIDS believes

that the disease is related to a loss of immune defence mechanisms. Accordingly, it could be expected that AIDS patients may present with dental manifestations of immunosuppression. There may be acute exacerbations of previously existing chronic gingival or periodontal conditions, quiescent pericoronal and periapical lesions may become symptomatic, and septic sockets and acute osteomyelitis may follow routine dental surgery.

Preventive measures

The staff and patients of the dental office must be protected from cross infection. AIDS and Hepatitis B appear to be spread by similar routes, i.e. via the blood and other body fluids. Therefore, it would appear logical to adopt the same sterility procedures and protective measures for AIDS patients as have been advocated in numerous reports and most recently by Main et al⁽²¹⁾, for Hepatitis B patients. The major areas for concern are:

- i — Wearing of gloves, masks, gowns and eyeglasses by the involved dental staff.
- ii — The draping of chairs, cabinets, handles and work surfaces with disposable covers.
- iii — Steam, heat or chemical vapour sterilization of instruments. Cold sterilization is inadequate.
- iv — The cleaning of non-sterilizable handpieces with cidex (glutaraldehyde) which also should be used to immediately wipe off blood spilled on an exposed surface.
- v — Fast, efficient treatment performed whenever possible under rubber dam, with high speed suction.

As previously suggested, AIDS patients may have acute exacerbations of dental infections. This, combined with the need for strict sterility procedures, indicates that dental treatment for such patients should perhaps be performed in a hospital environment.

Recently Hepatitis B vaccine has been suggested for persons at high risk for Hepatitis B infection. Dentists and their staff members are in the high risk group among health care personnel. Hepatitis B vaccine is prepared from the plasma of persons belonging to the same population that is prone to AIDS⁽²²⁾. Therefore, consideration must be given to the inherent safety of Hepatitis B vaccine.

A report published in September 1982 indicates that there has been no evidence of AIDS or other serious sequelae among the 17,602 recipients of Hepatitis B vaccine who have been followed from a few months up to seven years⁽²²⁾. In addition, the report details the purification procedures applied to the plasma once it has been removed from Hepatitis B surface antigen positive individuals.²² It has been documented that healthy appearing males with no overt evidence of AIDS may act as carriers of an infectious agent, and produce AIDS in their female sexual partners⁽¹⁵⁾. Therefore, while the purification techniques appear to be adequate, their effect on the potential transmission of AIDS will not be known until the etiol-

ogy of AIDS is established. It is important to note that the Hepatitis B vaccine does not induce an immunity to AIDS⁽¹⁾.

CONCLUSION

Acquired Immune Deficiency Syndrome is a new disease concept which is being diagnosed with increasing frequency. As of October 1982, there were 684 confirmed cases. This disease is important to dentists because it has a similar mode of transmission and affects similar individuals as does Hepatitis B. Unlike Hepatitis B, AIDS has a remarkably high mortality rate (42 per cent), no established etiology, and often has accompanying oral signs and symptoms.

High risk group patients complaining of general malaise, especially those with opportunistic infections such as candidiasis and herpes, should be assessed for Kaposi's sarcoma and pneumocystis carinii, before dental treatment. Dentists treating confirmed AIDS patients should document the extent to which immunosuppression exacerbates dental disease. In addition, dentists and their staff should adopt the same precautions that have been recommended for Hepatitis B patients. Although it appears unlikely that the Hepatitis B vaccine will produce AIDS, dentists should be aware of the close relationship between the vaccine and potential AIDS sufferers.

To date, the effect of AIDS upon the nature and treatment of dental disease, is unknown. However, it is suggested that dentists may avoid serious complications by wearing gloves and masks when performing intra-oral procedures on all patients, and by adopting acceptable sterility techniques for all instruments and equipment.

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REFERENCES

- *1. Pneumocystis Pneumonia — Los Angeles. *MMWR* 30: 250-252, 1981.
2. Kaposi's Sarcoma and Pneumocystis Pneumonia among Homosexual Men — New York City and California. *MMWR* 30: 305-307, 1981.
3. Safai, B., Good, R.A. Kaposi's Sarcoma: A review and recent developments. *CA* 31: 1-12, 1981.
4. Oettle, A. G. Geographical and Racial Differences in the Frequency of Kaposi's Sarcoma as Evidence of Environmental or Genetic Causes. *Acta Un Int Cancer*, 18: 330-363, 1962.
5. Harwood, A. R., Osoba, D., Hofstadter, S.L., Goldstein M.B., Cardella C.J., Holecek M.J., Kunynetz R., Giammarco R.A. Kaposi's Sarcoma in Recipients of Renal Transplants. *Am J Med* 67: 759-765, 1979.
6. Gange, R.W., Jones, E.W. Kaposi's Sarcoma and Immunosuppressive Therapy: An Appraisal. *Clin Exp Dermatol* 3: 135-146, 1978.

7. Haverkos, H.W., Curran, J. W. The Current Outbreak of Kaposi's Sarcoma and Opportunistic Infections. *CA* 32:330-339, 1982.
 8. Hughes, W.T., Feldman, S., Chaudhary, S., Ossi, M.J., Cox, F., Sanjal, S.K. Comparison of Pentamidine Isethionate and Trimethoprim — Sulfamethoxazole in the Treatment of Pneumocystis Carinii Pneumonia. *J. Pediatr* 92: 285-291, 1978.
 9. Follow-up on Kaposi's Sarcoma and Pneumocystis Pneumonia. *MMWR* 30: 409-410, 1981.
 10. Rinaldo, C.R., Carney, W.P., Richter, B.S., Black, P.H., Hirsch, M.S. Immunosuppression in Cytomegaloviral Mononucleosis. *J Infect Dis* 141: 488-495, 1980.
 11. Drew, W.L., Mintz L., Miner, R.C., Sands, M., Ketterer, B. Prevalence of Cytomegalovirus Infection in Homosexual Men. *J Infect Dis* 143: 188-192, 1981.
 12. Lang, D.J., Kummer, J.F. Cytomegalovirus in Semen: Observations in Selected Populations. *J. Infect Dis* 132: 472-473, 1975.
 13. Brown, S.M., Stimmel, B., Taub, R. N., Kochwa, S., Rosenfeld, R.E. Immunologic Dysfunction in Heroin Addicts. *Arch Intern Med* 134: 1001-1006, 1974.
 14. Acquired Immune Deficiency Syndrome (AIDS) in Prison Inmates — New York, New Jersey. *MMWR* 31: 700-702, 1983.
 15. Immune Deficiency among Female Sexual Partners of Males with Acquired Immune Deficiency Syndrome (AIDS) — New York. *MMWR* 31: 697-698, 1983.
 16. Opportunistic Infections and Kaposi's Sarcoma among Haitians in the United States. *MMWR* 31: 353-361, 1982.
 17. Pneumocystis Carinii Pneumonia among Persons with Hemophilia A. *MMWR* 31: 365-367, 1982.
 18. Update on Acquired Immune Deficiency Syndrome (AIDS) — United States. *MMWR* 31: 507-513, 1982.
 19. Darrow, W.W., Barrett, D., Jay, K., Young, A. The Gay Report on Sexually Transmitted Diseases. *Am J Public Health* 71: 1004-1071, 1981.
 20. Kinsey, A.C., Pomeroy, W.B., Martin, C.E. Sexual Behaviour in the Human Male. Philadelphia, W. B. Saunders Co., 1948.
 21. Main, J.H.P., Duncan, I.B.R., Fisher, M.M., Mock, D. The Implications of Viral Hepatitis for the Practice of Dentistry. *J Canad Dent Assn* 48: 756-761, 1982.
 22. Hepatitis B Virus Vaccine Safety: Report of an Inter-Agency Group. *MMWR* 31: 465-467, 1982.
- *MMWR is the Morbidity and Mortality Weekly Report produced by the Centers for Disease Control in the United States.

Erratum

In the article: "Dental care for cancer patients," by Drs. W.T. McGaw and J.H.P. Main, June edition, *JDCA*, Vol. 49 No. 6, pages 417-423, the captions for Figures 6a and 6b were transposed. Also, the name of the appliance pictured in Figure 6a is an "obturator" and the Figure 1 photograph was inverted.

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Correction — scientific paper

In our June, 1982 edition (J Canad Dent Assn, No 6, 1982) page 301, we published a paper by Dr. Lawrence Yanover, entitled: *Fluoride varnishes as cariostatic agents: a review*.

Several numerical errors appeared in Table 1 of that article and a corrected version of that table appears herewith.

Also, two references which should have appeared at the

end of the listing of references on Page 404, were missing in the published report.

They are as follows:

32. Wegner, H.: The clinical effect of application of fluoride varnish. *Caries Res* 10: 318-320, 1976.
33. Maiwald, H. J.: Geiger L.: Lokalapplikation von fluor schutzlack zur karies prophylaxe in Kollektiven. *Dtsch Stomatol* 23: 56-63, 1973.

Table 1
Clinical Studies of Fluoride Varnish

Length of study (yr.)	Applications per year	Dentition examined	Age of subjects (yr.)	% rel'n	Comments	Study
3	2	2°	9.5 10.5	18.0 43.0	Duraphat	13
2	2	1°	3.0	44.0	Duraphat	5
2	2	1°	5.0	7.4	Duraphat	6
		2°	5.0	(insig) 36.6	Half mouth technique	
2	2	2°	10.0-12.0	50.0	Duraphat	33
2	1	2°	11.0	none	Duraphat	33
	3	2°	11.0	45.0		
2	2	2°	11.0-13.0	12.0 (insig) 24.0	Fluor Protector Duraphat Both half mouth technique	12
2	2	2°	12.8	none	Fluor Protector prevention counselling Half mouth technique	10, 11
2	2	2°	13.0-14.0	42.5	Duraphat	29
1	1	2°	15.0	75.0	Duraphat and F- rinse	25
.5-1.5	unspecified	unspecified	"children"	37.5-46.1	Experimental varnish formula	26

Case Report

The palatally impacted mesiodens

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The most common supernumerary tooth is the "mesiodens", which is an extra tooth that is usually situated between the maxillary central incisors, and may occur singly, paired, erupted or impacted, and occasionally is inverted. Supernumerary teeth develop either from a third tooth bud arising from the dental lamina near the permanent tooth bud, or possibly from a splitting of the permanent tooth bud itself.¹

Schulze² found that one child in 110 will have supernumerary teeth. Shaffer, Hine and Levy¹ believe that there is a hereditary tendency, and the maxilla has a far greater predilection for the development of these teeth. Dentigerous cysts are often a complicating factor³ that can result in severe bone destruction and may displace the developing permanent teeth.

When a supernumerary tooth is located between the developing permanent incisors, it may prevent the eruption of the permanent tooth and may result in space loss and a midline shift due to the drifting of the adjacent central and lateral permanent incisors. Ectopic eruption of the permanent central incisor may also occur.

Once a supernumerary tooth is detected, a decision must be made as to whether surgical intervention is indicated. McDonald and Avery⁴ believe that if the supernumerary tooth does not interfere with the symmetrical development of the dental arches and eruption of the permanent teeth, and if there is no evidence of cyst formation, then surgical removal can be delayed. This will allow root closure to take place and decrease the chance of denervation and/or damage to the developing permanent tooth root structure. However, if the eruption of the maxillary incisor is impeded or cyst formation is occurring, then immediate surgical removal of the mesiodens is recommended. The parents must be advised of the risks to the developing dentition from the surgery.

At the time of the surgical procedure, the bone and soft tissue should be removed from the incisal third of the permanent tooth or teeth that are delayed in eruption, and an open pathway should be maintained, if possible. The authors recommend that impacted mesiodens should be removed under general anaesthesia, due to the difficulty in obtaining adequate profound anaesthesia, and for ease of child management.

SOMMAIRE

La dent surnuméraire la plus commune est la mesiodens, une dent supplémentaire située dans l'espace médian inter-incisif. Elle peut être unique ou double, faire éruption ou rester incluse, et il arrive parfois qu'elle soit inversée. Les dents surnuméraires se développent à partir d'un troisième bourgeon surgissant de la lame dentaire, près du bourgeon permanent, ou d'une division du bourgeon permanent même.

Schulze a découvert qu'un enfant sur 110 aura des dents surnuméraires. Schaffer, Hine et Levy croient qu'il y a un facteur héréditaire en cause et que, beaucoup plus que les autres dents, le maxillaire est susceptible de produire une dent surnuméraire. Les kystes dentifères sont souvent des facteurs complexes qui peuvent entraîner une destruction osseuse grave et se substituer à la croissance des dents permanentes.

Quand une dent surnuméraire apparaît entre les incisives permanentes qui croissent, elle peut empêcher l'éruption de la dent permanente. Il peut en résulter une perte d'espace et une déviation de la ligne médiane à cause d'un déplacement des incisives centrales et latérales permanentes qui sont adjacentes. Il peut également se produire une éruption ectopique de l'incisive centrale permanente.

Une fois qu'une dent surnuméraire a été repérée, il faut décider si une intervention chirurgicale s'impose. Selon McDonald et Avery, si une telle dent ne nuit pas à la croissance symétrique des arcades dentaires et à l'éruption des dents permanentes, et qu'on ne décèle pas de kyste, on peut retarder l'intervention chirurgicale, ce qui permettra la fermeture des racines et réduira les risques de les sectionner ou d'endommager le réseau radiculaire de la dent permanente en train de se former. Cependant, si l'éruption l'incisive maxillaire est entravée ou si un kyste se forme, il convient d'extraire immédiatement la mesiodens. Et on doit prévenir les parents des risques que cette opération présente pour la dentition en train de se développer.

Lors de l'opération, on doit enlever les tissus durs et mous au tiers de l'incisive permanente ou des incisives permanentes dont la croissance est gênée et, si possible, maintenir un espace libre. Les auteurs recommandent que les mesiodens incluses soient extraites sous anesthésie générale à cause de la difficulté d'obtenir une anesthésie profonde qui soit adéquate, ainsi que pour le bien-être du jeune patient.

CASE REPORT

R.N., a nine-year-old child, was referred to the clinic due to an unerupted maxillary right central tooth 11, and a retained primary right central, tooth 51 (Fig. 1). An orthopantomograph (Fig. 2) and a periapical radiograph (Fig. 3) revealed an impacted mesiodens. The mesiodens had prevented the eruption of the maxillary right permanent central — tooth 11. In addition, a severe tooth-size-to-arch-size discrepancy was present. A decision was made to surgically remove the mesiodens.

The tube shift technique, or so-called "Clark's Rule",⁵ was used to determine that the mesiodens was palatally located. An impression was taken, and an acrylic palatal stent fabricated to minimize the possibility of postoperative hematoma formation. The parents were advised on the potential for denervation of the anterior teeth from the surgery.

The patient was hospitalized and a general anaesthetic administered. The mesiodens was surgically removed after a full thickness palatal flap was raised. The primary central, tooth 51, was extracted, and the bone overlying the permanent central was removed. The patient recovered from the surgery without incident.

The permanent central was observed for a period of six months to see if spontaneous eruption would occur. In the meantime, orthodontic treatment with fixed edgewise therapy took place to correct the maxillary midline shift which had taken place due to the prolonged retention of the primary central.

Tooth 11 did erupt somewhat (Figs. 4 and 5); however, it was decided to surgically expose the central, and attach a direct bond orthodontic bracket. Orthodontic forces would then be used to hasten the eruption of the tooth.

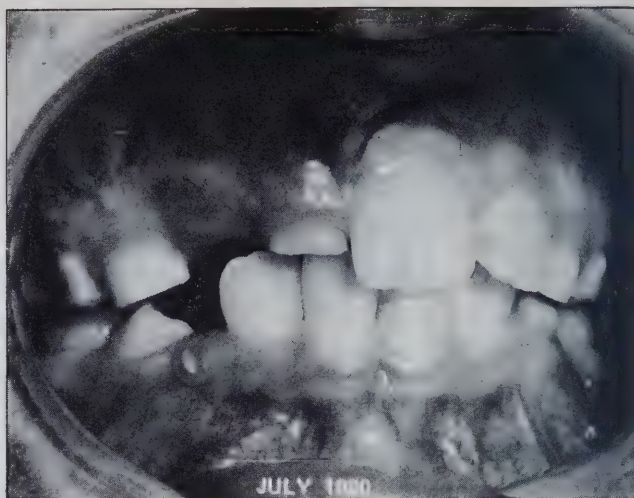


Fig 1: Intra-oral view showing retained maxillary primary right central and unerupted permanent central.

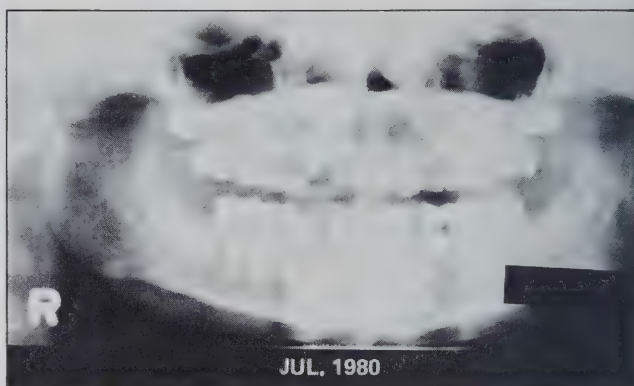


Fig 2: Orthopantomograph revealing the presence of a mesiodens and the impacted permanent right central. Notice that the permanent right lateral is erupting out of sequence.

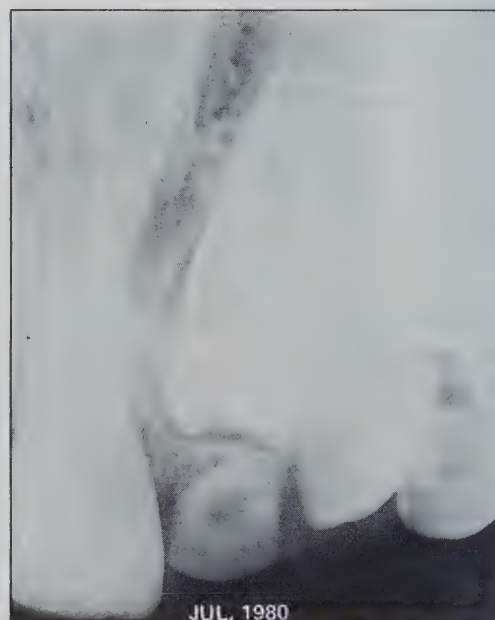


Fig 3: Periapical view showing the presence of the mesiodens.

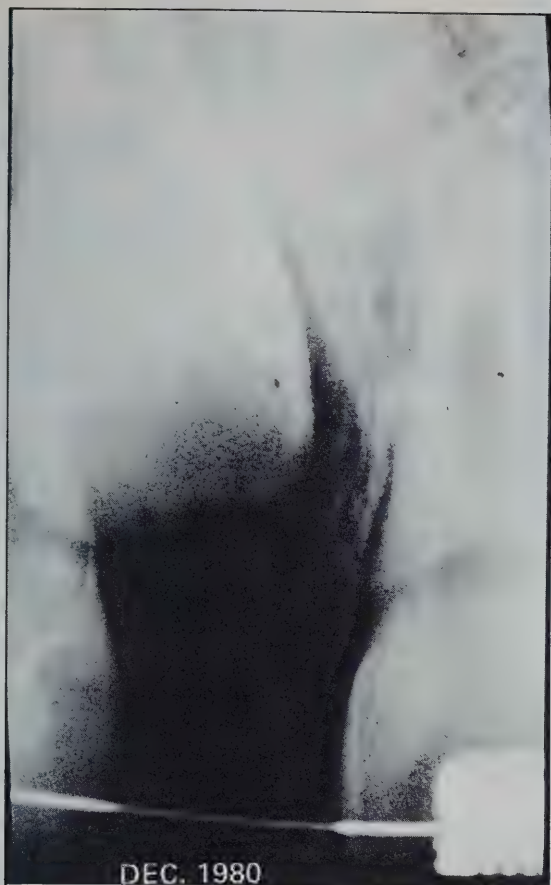


Fig 4: Periapical radiograph showing the position of the permanent right central, six months following surgical removal of the impacted mesiodens.



Fig 5: Periapical radiograph revealed that some spontaneous eruption of the permanent central did occur when compared to Fig 4. (Note that this radiograph was reversed during photographic reproduction).

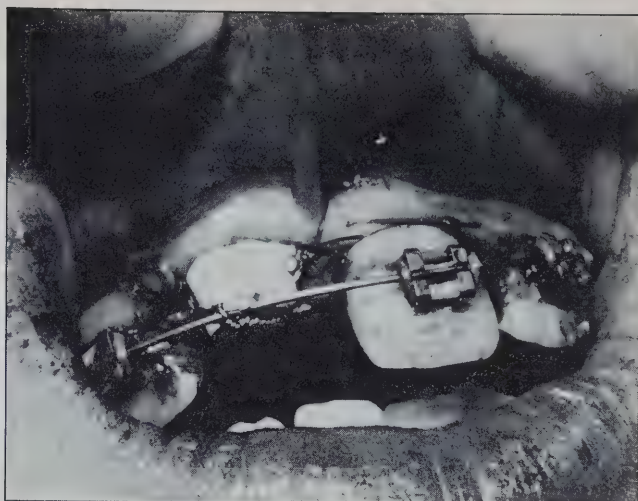


Fig 6: Intra-oral view immediately following surgery showing periodontal pack in place and a stainless-steel ligature attached to the bracket placed on the erupting permanent central.



Fig 7: Intra-oral view showing maxillary right permanent central exposed.

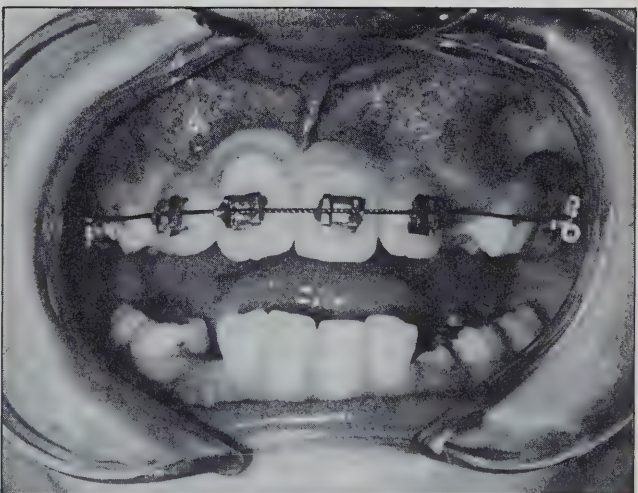


Fig 8: Intra-oral showing the permanent right central in position.

The patient was pre-medicated with 12 mg of Valium, orally, one hour pre-operatively. A full-thickness labial flap was raised and a Unitek direct bond bracket attached to tooth 11. The tooth was gradually moved into position over a period of six months (Figs. 6 and 7) by means of light forces exerted through elastic power thread and light orthodontic wire.

The tooth remained vital and good bony apposition occurred around the central (Fig. 8). Further edgewise therapy will be necessary to correct the malocclusion once more permanent teeth have erupted.

CONCLUSIONS

1. All paediatric patients should receive a paedodontic radiographic survey or pantomograph radiograph prior to the exfoliation of the primary anterior teeth, at approximately age five, to ensure that no supernumerary teeth or other anomalies are present.
2. If a mesiodens is detected in a child, then the clinician must decide whether immediate surgical intervention is required. If the supernumerary tooth does not interfere with the symmetrical development of the dental arch, and/or eruption of the permanent teeth, and if there is no evidence of cyst formation, then surgical removal may be delayed. Close monitoring must take place.
3. If surgery is required then the parents must be advised on the possibility of denervation of the permanent teeth.
4. If a palatal surgical approach is used, a palatal stent to minimize the possibility of hematoma formation is mandatory.

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The views expressed in this article are strictly those of the authors and do not necessarily reflect those of the Canadian Forces Dental Service.

REFERENCES

1. Shafer, W.G. Hine, M.K. and Levy, A.B. *A Textbook of Oral Pathology*. Toronto, Saunders, 1974.
2. Schulze, C. Incidence of supernumerary teeth. *Dent Abstr* 6:23, 1961.
3. Montelius, G.A. and Wohlquist, N.F. Supernumerary tooth bud which developed into a cyst. *Northwest Dent J* 25:151, 1946.
4. McDonald, R.E. and Avery, D.R. *Dentistry for the Child and Adolescent*. St. Louis, Mosby, 1978.
5. Wuehrman, A.H. and Manson-Heng, L.R. *Dental Radiology*. St. Louis, Mosby, 1965.



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Qualité de l'alimentation, consommation de sucreries et carie dentaire chez un groupe d'adolescents de la banlieue de Québec

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RÉSUMÉ

Cette recherche avait pour objectif principal de déterminer les facteurs alimentaires qui influencent le plus la carie dentaire chez l'adolescent québécois. L'échantillon était composé de 159 sujets (79 filles et 80 garçons) âgés de 12 à 17 ans et choisis au hasard dans sept écoles. À partir d'un relevé alimentaire de trois jours, l'alimentation a été évaluée en termes de consommation d'aliments des groupes du Guide alimentaire canadien et de sucreries solides et liquides aux repas et entre les repas. La denture a été examinée par un seul dentiste, avec l'aide d'un miroir buccal, d'un explorateur, en utilisant la lumière de l'unité dentaire et avec l'aide de quatre radiographies interproximales. L'état dentaire et les pratiques d'hygiène dentaire des sujets ont été décrits dans des publications antérieures^{4,24}. En moyenne, la consommation de produits laitiers et de fruits et légumes est inférieure aux quantités recommandées dans le Guide alimentaire canadien. Les filles consomment en moyenne moins de produits laitiers, de viande et de substituts et de produits céréaliers que les garçons. La consommation de fruits frais, de légumes verts et jaunes, de légumes crus et de produits céréaliers à grains entiers est minime. La consommation de sucreries

est très fréquente et présente une grande variation entre les sujets. En moyenne, les filles consomment plus de gommes à mâcher que les garçons, mais incluent moins de gâteaux glacés et de boissons chaudes sucrées dans leurs repas. Des analyses de corrélation ont révélé plusieurs relations significatives entre des variables alimentaires et l'indice CAO ou le nombre de dents cariées. Parmi ces variables, les plus significatives sont la consommation de chocolat, de gommes à mâcher sucrées et de bonbons et la fréquence des collations contenant des sucreries. Dans le but de réduire l'incidence de la carie dentaire chez les jeunes Québécois, il s'avère donc nécessaire, dans les programmes de prévention, de considérer l'alimentation au même titre que les autres facteurs.

SUMMARY

Today's dietary habits in our society often promote dental decay. The texture and the composition of food and the frequency of sweets consumption are important factors to consider in order to prevent dental decay. In this

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study, the interrelationship of diet and caries was evaluated. Of the sample of 159 adolescents aged from 12 to 17, 79 were girls and 80 were boys. They were randomly chosen from seven high schools. Three-day diet records were compared to the recommendations of Canada's Food Guide and the consumption of sweets, during and between meals in various forms, was analyzed. From the diet records, the nutritional quality and the frequency of eating sweets, solid or liquid, and at meals or between meals, were calculated. One dentist conducted the caries examination, using mouth mirror, explorer, extra-oral light and four bite-wing films. The dental status and the oral hygiene habits of the subjects were reported in previous publications^{4,24}. The average number of servings of milk products and of fruit and vegetables was inferior to those recommended in Canada's Food Guide. Girls ate less milk products, meat and substitutes and cereal products than boys. Fresh fruit, green and yellow vegetables, raw vegetables and whole grain cereal products were consumed infrequently. The consumption of sweets was very frequent and showed a considerable variation between subjects. On the average, girls had chewing gum more often than boys, but included less frosted cakes and sweetened tea or coffee in their meals. Correlation analyses revealed several significant relations between diet variables and caries. Among those variables, the most significant were the consumption of chocolate, regular gum and candies and the frequency of snacks containing sweets. Dental decay is a multifactorial sickness and a program intended to control it must take all of the factors into consideration, including food habits.

La carie dentaire est l'une des principales maladies de civilisation liées à l'alimentation. Depuis le début du vingtième siècle, il est généralement admis que la carie dentaire est le résultat de l'érosion de l'émail exposé à des acides formés par des microorganismes à partir des aliments retenus sur certaines faces dentaires. L'état dentaire des adolescents québécois^{1,2,3,4,5} a été étudié de façon approfondie au cours des dernières années. Les jeunes Québécois ont un indice CAO qui figure encore parmi ceux qui sont élevés dans le monde: après avoir comparé leurs résultats à l'enquête internationale I.C.S.D.M.⁶, Stamm³ et ses collaborateurs situent le Québec au troisième rang de l'échelle internationale.

Selon De Paola et Alfano⁷, la prévention de la carie dentaire exige qu'on intervienne en même temps au niveau des trois facteurs principalement responsables de la carie dentaire. D'une part, selon Santé et Bien-être social Canada⁸, l'expérience clinique et certaines études démontrent que l'application efficace de mesures d'hygiène dentaire dépasse souvent les aptitudes de la moyenne des individus et réclame, de la part des professionnels, énormément de temps et d'attention. Il ne semble pas qu'à l'heure actuelle, ces programmes puissent à eux seuls pré-

venir la formation de la plaque bactérienne et encore moins réduire de façon notable l'incidence de la carie dentaire. Les programmes de lutte contre la plaque dentaire ne sont, pour l'instant, qu'une mesure qui, pour être efficace, doit être utilisée en combinaison avec d'autres mesures préventives. D'autre part, selon Lussier⁹, le bilan de la fluoruration des eaux de consommation au Québec sur une durée de 25 ans ressemble beaucoup plus à un échec qu'à un demi-succès et, dans la Politique québécoise en matière de nutrition¹⁰, on affirme qu'en dépit des mesures palliatives telles que les soins dentaires gratuits et, en dépit des suppléments de fluorures, la carie dentaire persistera, à moins d'opérer un redressement dans l'alimentation des enfants.

Gustafsson et ses collaborateurs¹¹ ont démontré une relation positive entre la fréquence de consommation de sucreries et la carie dentaire. Cette relation a aussi été établie par plusieurs autres^{12,13,14,15,16,17,18}. Par ailleurs, certains chercheurs^{19,20,21,22} n'ont pu démontrer aucune relation significative entre l'alimentation et la carie dentaire.

Jusqu'à présent, peu de données⁵ ont été publiées sur la relation entre l'alimentation et l'état dentaire des jeunes Québécois. La présente étude a donc été entreprise en ayant, entre autres*, les objectifs suivants: décrire le comportement alimentaire d'une population d'adolescents de la ville de Charlesbourg dans la banlieue de Québec et déterminer la relation existante entre l'indice CAO et diverses variables alimentaires.

METHODOLOGIE

L'échantillon était composé de 159 sujets dont 79 filles et 80 garçons, âgés de 12 à 17 ans, sans handicap physique ou mental et fréquentant les écoles secondaires publiques et les polyvalentes de la Commission scolaire régionale Jean-Talon. Les sujets ont été choisis au hasard dans sept écoles des municipalités de Charlesbourg, Orsainville et Notre-Dame des Laurentides. Ces municipalités sont situées dans la banlieue nord de la ville de Québec, dans la province de Québec. L'eau de consommation n'était pas fluorurée au moment de l'étude et les lieux de résidence antérieurs des sujets ont été obtenus par l'entremise d'un questionnaire socio-économique afin de vérifier l'effet antérieur possible des fluorures. L'accord des parents quant à la participation de leur enfant à cette étude a été obtenu par une lettre-réponse qui comportait également un questionnaire sur l'histoire médicale de leur enfant.

La première partie de la collecte des données consistait à recueillir les relevés alimentaires de trois jours dont une journée de fin de semaine. Une rencontre d'une durée de 50 minutes a eu lieu dans chaque école avec les étudiants

* Cette étude avait plusieurs autres objectifs; certains résultats ont déjà publiés^{4,24} ou le seront ultérieurement.

faisant partie de l'échantillon, les 15, 16 ou 17 mars 1978. Au cours de la rencontre, en plus de directives verbales, un document explicatif a été fourni à chaque étudiant avec les formulaires à remplir. Une enveloppe adressée et affranchie a servi de véhicule pour le retour des relevés alimentaires et des questionnaires. Tous les documents sont parvenus au responsable de la recherche avant le début d'avril 1978. Les relevés alimentaires ont été révisés avec les sujets quant à la description des aliments et à l'évaluation des portions, au cours des journées réservées aux examens dentaires.

La deuxième partie de la collecte des données était constituée d'un examen de la denture qui a été fait par un seul dentiste avec l'aide d'un miroir buccal, d'un explorateur, en utilisant la lumière de l'unité dentaire et après avoir soigneusement asséché les dents. De plus, quatre radiographies interproximales ont servi à diagnostiquer les caries. L'indice CAO (dents), c'est-à-dire la somme des dents cariées, absentes et obturées, a été obtenu pour chacun des sujets. De plus amples détails sur la méthodologie et sur les résultats de l'examen dentaire ont été donnés dans une publication antérieure.⁴

Tous les calculs qui ont servi à l'analyse des données ont été faits à l'aide du programme S.P.S.S.²³ au Centre de traitement de l'information de l'Université Laval.

Compilation des données alimentaires

Qualité nutritionnelle de l'alimentation:

La consommation moyenne par jour d'aliments de chacun des groupes du Guide alimentaire canadien de même que la différence entre cette consommation moyenne et les recommandations du Guide ont été calculées. À cet effet, tous les aliments inscrits dans le relevé alimentaire et appartenant à l'un des groupes du Guide ont été exprimés en nombre multiple ou sous-multiple des portions ou équivalents de portions suggérés dans le Guide.

Pour établir la différence entre les quantités consommées et les quantités recommandées, la recommandation maximale a été utilisée pour les groupes, soit quatre portions pour le groupe du lait, deux portions pour le groupe de la viande, cinq portions pour le groupe des fruits et légumes et cinq portions pour le groupe du pain et des céréales; par ailleurs, pour les sous-groupes des fruits et des légumes, la recommandation minimale a été utilisée, soit deux portions pour chacun.

Potentiel cariogène de l'alimentation

Le potentiel cariogène de l'alimentation a été étudié sous plusieurs aspects. Tout d'abord, la fréquence des repas et des collations en général, la fréquence des collations contenant des sucreries et la fréquence de consommation de sucreries de toutes sortes ont été compilées pour les trois jours. La consommation de gommes à mâcher et de pastilles constituait une consommation de sucreries plutôt qu'une collation.

Puis, des compilations distinctes, en termes de fréquence de consommation, ont été effectuées pour les sucreries selon qu'elles étaient solides ou liquides et selon qu'elles étaient consommées aux repas ou entre les repas, comme collations ou isolément.

Ensuite, les diverses sortes de sucreries ont fait l'objet d'une compilation en termes de quantité totale consommée en moyenne par jour, et de quantité moyenne consommée chaque jour aux repas et entre les repas. Ces calculs ont été effectués sur les données suivantes: le nombre de gommes à mâcher sucrées, le poids en grammes de chocolat, le nombre de bonbons, le nombre de biscuits glacés, le nombre de portions de gâteaux glacés, le volume en millilitres de boissons aromatisées et de boissons gazeuses et le nombre de portions de thé ou café sucrés.

Les moyennes et les écarts-types ont été calculés pour chacune des variables compilées à partir des relevés alimentaires de trois jours de l'ensemble des sujets. Les différences de moyennes entre les sexes ont été calculées et leur signification a été obtenue à l'aide d'analyses de variance. Plusieurs répartitions de la population en pourcentage des sujets selon les variables alimentaires ont été effectuées et des coefficients de corrélation ont été calculés afin de mesurer la relation linéaire entre l'indice CAO et les variables alimentaires, et entre le nombre de dents cariées et les variables alimentaires.

RÉSULTATS ET DISCUSSION

Qualité de l'alimentation:

Le tableau 1 et la figure 1 présentent la consommation quotidienne moyenne des groupes d'aliments recommandés dans le Guide alimentaire canadien, de même que la différence entre cette consommation et les recommandations du Guide. **La figure 2** représente les répartitions de la population selon la consommation en portions de lait et de produits laitiers, de fruits (incluant les jus) et de légumes consommés en moyenne à chaque jour.

La consommation moyenne de lait et de produits laitiers est de 2, 4 portions par jour, alors que le Guide alimentaire recommande pour les adolescents trois à quatre portions par jour. Les garçons en consomment en moyenne 2,7 portions et les filles 2,1 ($P = 0,01$). Tel qu'illustré sur la **figure 2**, 16 pour cent seulement des sujets prennent quatre portions ou plus de lait ou de produits laitiers à chaque jour, alors que 69,5 pour cent des sujets consomment en moyenne moins de trois portions quotidiennement. Ces résultats vont dans le même sens que ceux de l'enquête Nutrition Canada²⁵ où il avait été constaté qu'en moyenne les adolescents québécois des deux sexes consommaient moins de lait et de produits laitiers que les quantités recommandées, et également moins que les adolescents des autres provinces canadiennes, et que les filles en consommaient moins que les garçons. La faible consommation de lait et de mets à base de lait explique d'ailleurs les apports insuffisants de calcium et de vitamine D

Tableau 1

Consommation quotidienne moyenne, en nombre de portions,
comparée aux recommandations du Guide alimentaire canadien

Groupes du Guide alimentaire	Portions recommandées †	Portions consommées moyenne $\pm$ écart-type	Différence moyenne $\pm$ écart-type
Lait et produits laitiers	4	2,4 $\pm$ 1,5	-1,6 $\pm$ 1,5
Viande et substituts	2	2,3 $\pm$ 0,8	0,3 $\pm$ 0,9
Fruits & légumes	5	4,5 $\pm$ 2,3	-0,5 $\pm$ 2,3
Fruits	2	2,1 ‡ $\pm$ 1,8	0,1 $\pm$ 1,8
jus de fruits	—	1,4 $\pm$ 1,6	
Légumes	2	2,4 + $\pm$ 1,2	0,4 $\pm$ 1,2
Pain & céréales	5	4,8 § $\pm$ 2,4	-0,2 $\pm$ 2,4
Pain & céréales à grains entiers	—	0,1 $\pm$ 0,4	—
Nombre de sujets: 154			

± Recommandations du Guide alimentaire canadien (voir texte).

‡ La quantité totale de fruits inclut la quantité de jus de fruits consommée.

§ La quantité totale de pain et céréales inclut la quantité de pain et de céréales à grains entiers consommée.

|| Pour ces groupes d'aliments, la consommation moyenne est significativement différente selon les sexes (voir texte).

observés au cours de cette même enquête chez un bon nombre d'adolescents québécois^{10,34} puisque le lait enrichi constitue la principale source alimentaire de ces deux éléments nutritifs.

La consommation moyenne de fruits et de légumes, soit 4,5 portions par jour, rejoint la recommandation de quatre à cinq portions par jour et n'est pas significativement différente selon le sexe. Il faut noter toutefois que, si la consommation moyenne de fruits est légèrement supérieure à la recommandation minimale du Guide, les deux/ tiers des portions de fruits consommées le sont sous forme de jus qui sont le plus souvent des jus sucrés. La

consommation moyenne de légumes est de 2, 4 portions par jour, soit légèrement supérieure à la recommandation minimale de deux portions par jour. Cependant, tel que noté dans les relevés alimentaires, beaucoup d'adolescents consomment régulièrement deux portions de pommes de terre par jour, incluant les pommes de terre frites, lors du repas du midi; il faut donc en déduire que la consommation de légumes verts et jaunes et de légumes crus est faible. La figure 2 démontre que 60,4 pour cent des sujets ne consomment pas deux portions de fruits quotidiennement et que 42,2 pour cent des sujets ne consomment pas deux portions de légumes quotidiennement. Les

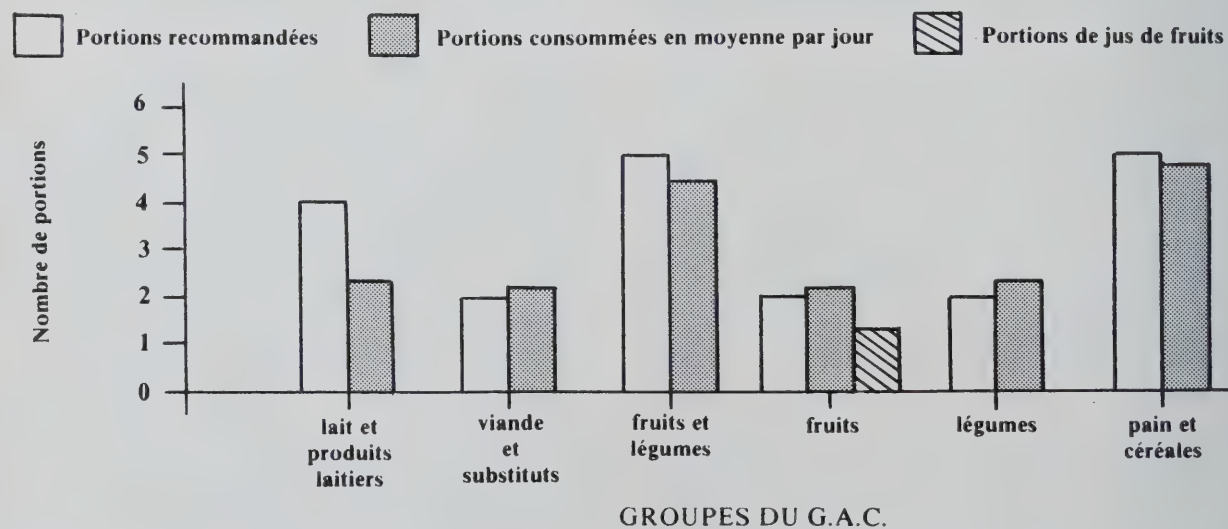


Figure 1: Consommation quotidienne moyenne, en nombre de portions, comparée aux recommandations du Guide alimentaire canadien.

fruits et les légumes sont normalement des sources importantes de vitamine C et de fibres alimentaires. La forte consommation de jus de fruits et de pommes de terre permet de croire à un apport en vitamine C suffisant, à condition toutefois que la vitamine n'ait pas été détruite par des procédés de conservation et de préparation impropres. De fait, Nutrition Canada avait rapporté des taux bas de vitamine C sérique^{10,25} en dépit d'apports alimentaires généralement élevés. Par ailleurs, étant donné la faible consommation de fruits entiers et de légumes autres que la pomme de terre, le groupe des fruits et légumes n'a pu constituer pour les sujets de cette étude une source appréciable de fibres alimentaires. Enfin, la quasi-absence des légumes verts et jaunes dans le régime des adolescents les prive d'une source importante de vitamine A.

La consommation moyenne de viande et de substituts est de 2, 3 portions par jour, soit un peu plus que les deux portions recommandées, et se compare à celle des adolescents québécois observée lors de l'enquête Nutrition Canada²⁵. La consommation moyenne est de 2, 5 portions pour les garçons et de 2, 2 portions pour les filles ($P < 0,01$). Il est à noter toutefois que, chez les sujets qui se situent en deçà de la moyenne, et surtout dans le cas des filles, il peut exister un risque de carence en fer, étant donné l'importance des viandes et des substituts comme source de ce nutriment, et les besoins en fer élevés des adolescentes. L'enquête Nutrition Canada avait d'ailleurs signalé les taux de saturation de la transferrine indicatifs d'un risque de carence en fer chez plus d'un tiers des adolescentes québécoises^{10,34}.

La consommation moyenne de pain et de céréales équivaut approximativement à la recommandation maximale du Guide alimentaire canadien, soit cinq portions. Les

garçons en consomment en moyenne 5, 8 portions et les filles, 3, 9 portions ($P < 0,001$). Cependant, la consommation moyenne de pain et de céréales à grains entiers est presque nulle étant donné que 84,4 pour cent des sujets n'en consomment pas. Selon Burkitt²⁶, certaines maladies du tube digestif sont reliées au manque de fibres dans l'alimentation des pays industrialisés. De plus, étant non digestibles et hydrophiles, les fibres facilitent l'élimination des matières fécales et préviennent la constipation. Elles se retrouvent dans les pains et les céréales à grains entiers, dans les fruits et les légumes crus et dans les légumes secs. Or, toutes ces catégories d'aliments n'ont été consommées qu'en quantités minimales ou même nulles par la plupart des sujets de l'étude.

Les résultats obtenus concernant la qualité nutritionnelle de l'alimentation vérifient les hypothèses formulées au début de l'étude à l'effet que la consommation moyenne des aliments du groupe du lait et du groupe des fruits et des légumes est inférieure aux recommandations du Guide alimentaire canadien et que la consommation moyenne des aliments du groupe de la viande et du groupe des céréales est égale ou supérieure aux recommandations du Guide alimentaire canadien. Les principaux problèmes qui se dégagent de l'étude sont la consommation insuffisante de lait et de produits laitiers, la consommation élevée de jus de fruits sucrés aux dépens de la consommation de fruits frais, le manque de légumes verts et jaunes et de légumes crus et la quasi-absence de consommation de grains de céréales entiers.

Potentiel cariogène de l'alimentation

Le tableau 2 présente les données moyennes relatives au potentiel cariogène de l'alimentation des sujets. La fré-

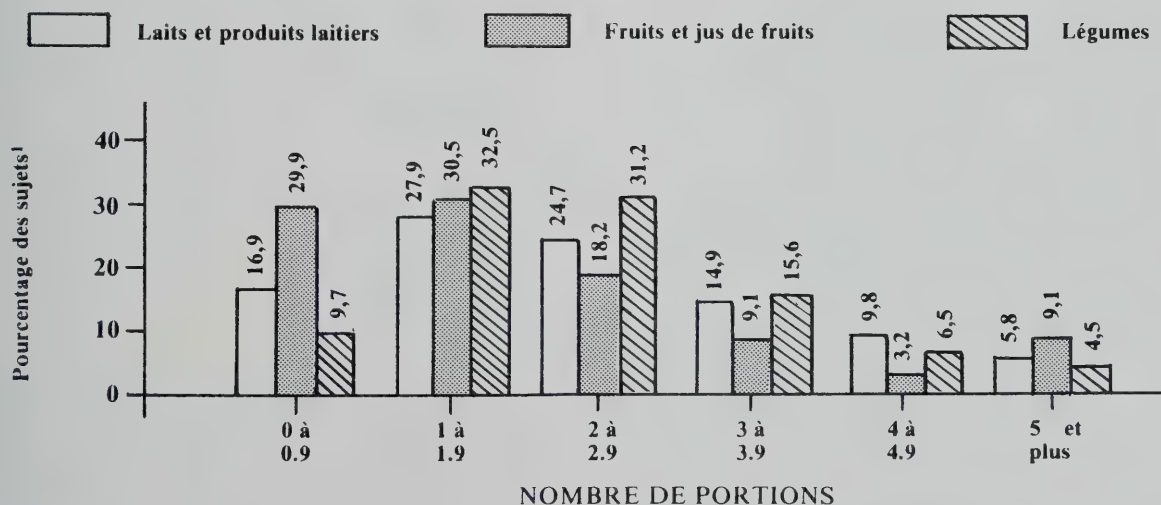


Figure 2: Répartition de la population selon la consommation quotidienne en portions, de lait et produits laitiers, de fruits et de légumes.

1 (Nombre total de sujets: 154)

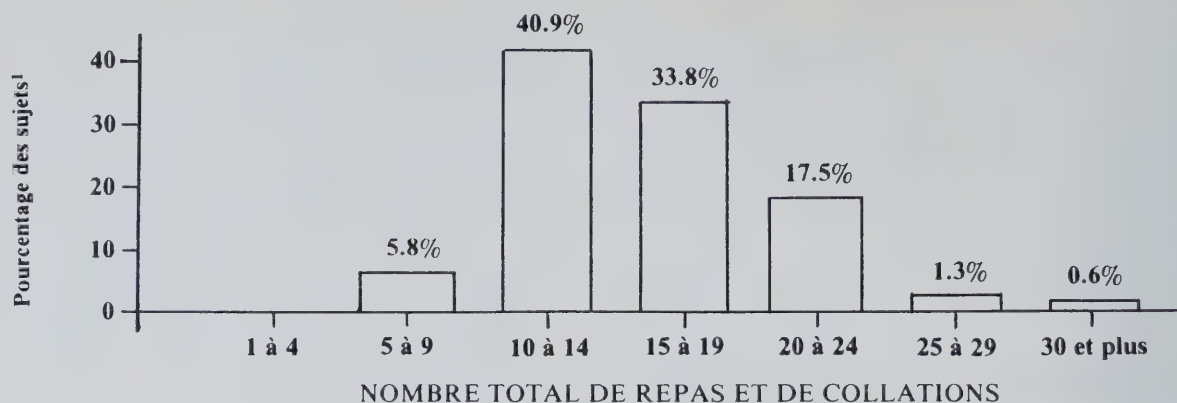


Figure 3: Répartition de la population selon le nombre total de repas et de collations pour les 3 jours.

¹ (Nombre total de sujets: 154)

quence des repas et des collations s'élève en moyenne à 15,5 pour trois jours, soit un peu plus de cinq par jour. La figure 3 illustre que le nombre total de repas et de collations pour les trois jours pour la majorité des sujets se situe entre 10 et 19.

La fréquence moyenne des collations en trois jours est de sept, 7 alors que celle des collations contenant des sucreries est de 7, 2: la très grande majorité des collations, plus des 9/10, contiennent donc des sucreries. La figure 4 illustre la grande variation dans la fréquence totale des collations contenant des sucreries à l'intérieur de la population et montre que 51,3 pour cent des adolescents, soit plus de la moitié, ont pris plus de deux collations sucrées par jour, et que 30,4 pour cent, soit près du tiers, en ont pris plus de trois par jour.

Le tableau 2 montre que les sucreries solides sont consommées en moyenne aussi fréquemment entre les repas qu'au cours des repas. Par contre, la fréquence de consommation des sucreries liquides est plus élevée aux repas qu'entre les repas. Ce résultat reflète le fait, observé par les compilateurs, que les adolescents de l'étude prennent souvent des boissons sucrées et des eaux gazeuses aux repas, et ceci au détriment de la consommation du lait.

La fréquence totale de consommation de sucreries, qui inclut non seulement celles des repas et des collations mais aussi les pastilles, les bonbons, les gommes à mâcher et les autres sucreries consommées occasionnellement en petite quantité et ne constituant pas en elle-même une collation, s'élève en moyenne à 18,4 (tableau 2), soit environ 6 par jour.

Le tableau 3 présente la consommation moyenne quotidienne de diverses sucreries aux repas, entre les repas et au total. Les plus grandes quantités de chocolat, de bonbons et de gommes à mâcher sucrées sont consommées entre les repas; leur moyenne étant respectivement de 5,9g, 0,6 bonbon et de 0,6 gomme. Les gâteaux glacés consti-

tuent la plupart du temps des desserts servis à la fin d'un repas; leur moyenne de consommation quotidienne se situe à 0,7 portion. Les biscuits glacés sont consommés autant durant les collations que durant les repas, avec une moyenne de consommation quotidienne de 0,9 biscuit. Les boissons aromatisées et les eaux gazeuses sont consommées à toute heure de la journée, aux repas et aux collations. La moyenne totale est de 156,3 millilitres. Le thé ou le café sucrés sont peu consommés par les adolescents de l'étude et leur moment de consommation se situe surtout durant les repas. La consommation de gommes à mâcher sucrées s'avère plus élevée chez les filles que chez

Tableau 2

Potentiel cariogène de l'alimentation †

Consommation d'aliments et de sucreries	Fréquence en trois jours Moyenne + écart-type	
Repas et collations	15,5 ± 4,5	
Collations	7,7 ± 4,6	
Collations des contenant des sucreries	7,2 ± 4,7	
Consommation de sucreries ‡	18,4 ± 7,6	
	Pendant les repas	Entre les repas
Consommation de sucreries liquides	4,5 ± 3,0	2,6 ± 2,7
Consommation de sucreries solides	5,7 ± 4,2	5,6 ± 4,7

† Nombre de sujets: 154

‡ Incluant, en plus des repas et des collations, la consommation isolée d'aliments sucrés tels que pastilles, bonbons, gommes à mâcher sucrées, eaux gazeuses.

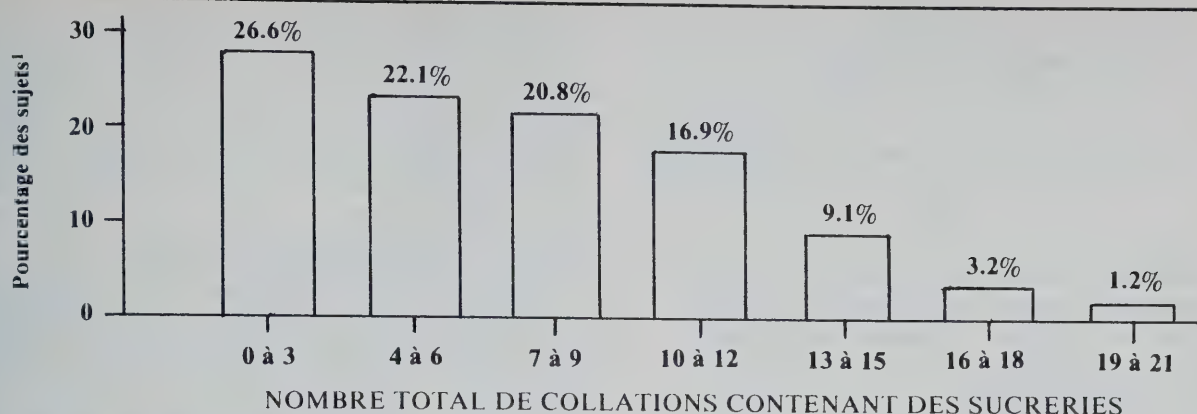


Figure 4: Répartition de la population selon le nombre total de collations contenant des sucreries en 3 jours.

1 (Nombre total de sujets: 154)

les garçons. En effet, on note, entre les repas, une consommation moyenne de 0,8 gomme chez les filles et de 0,4 chez les garçons ($P < 0,01$) et, à la fin des repas, une moyenne de 0,1 gomme chez les filles et de 0,03 chez les garçons ($P < 0,06$). Par ailleurs, les garçons ont une consommation plus élevée de gâteaux glacés ($P < 0,001$) et de café et thé sucrés ($P < 0,05$) que les filles pendant les repas. Les moyennes sont de 0,6 et 0,4 gâteau glacé et de 0,4 et 0,2 portion de boissons chaudes sucrées pour les garçons et pour les filles respectivement.

Les résultats obtenus confirment l'hypothèse voulant que la majorité des collations soient constituées d'aliments sucrés. Cependant, les grands écarts-types observés dans le tableau 3 illustrent la variation importante qui existe dans la consommation des diverses sucreries; en effet, certains sujets ne consommaient pas d'une certaine sucrerie, alors que d'autres en consommaient beaucoup

plus que la moyenne observée. Dans l'ensemble, force est de constater que la consommation d'aliments sucrés tels que chocolat, gomme à mâcher ou autres occupe une place importante dans l'alimentation des jeunes adolescents, et que cette consommation semble se faire aux dépens d'aliments nutritifs qui ne sont pas consommés en assez grande quantité, tels que le lait et les produits laitiers, les fruits et les légumes. De plus, il nous semble opportun de noter que la consommation de gommes non sucrées, de gâteaux sans glace et de thé et café non sucrés est très faible. Cependant, la consommation moyenne de gommes non sucrées est significativement plus élevée chez les filles que chez les garçons ($P < 0,05$).

L'enquête Nutrition Canada avait déjà montré que, d'une façon générale, les Québécois de tous âges sont plus friands de sucreries et d'eaux gazeuses que les autres Canadiens²⁵. À partir des données de cette enquête, les

Tableau 3

Consommation quotidienne moyenne des sucreries les plus courantes †

Sucreries	Consommation quotidienne Moyenne ± écart-type		
	Pendant les repas	Entre les repas	Total
Chocolat, grammes	2,0 ± 5,7	5,9 ± 10,5	8,0 ± 12,6
Gâteaux, nombre de portions ‡	0,5 ± 0,6	0,2 ± 0,3	0,7 ± 0,9
Biscuits glacés, nombre	0,4 ± 0,8	0,5 ± 1,2	0,9 ± 1,6
Gommes à mâcher, nombre ‡	0,1 ± 0,2	0,6 ± 1,0	0,6 ± 1,0
Bonbons, nombre	0,1 ± 0,3	0,6 ± 1,2	0,6 ± 1,3
Boissons aromatisées et eaux gazeuses, millilitres	71,0 ± 105,8	85,3 ± 114,9	156,3 ± 167,4
Thé et café sucrés, nombre de portions †	0,3 ± 0,6	0,1 ± 0,2	0,3 ± 0,6

† Nombre de sujets: 154

‡ Pour ces sucreries, la consommation moyenne est significativement différente selon les sexes (voir texte).

Tableau 4

Coefficients de corrélation (r) entre certaines variables alimentaires† et la carie

Variables†	Indice CAO	Nombre de dents cariées
	r§	r§
Lait, portions	-0,14*	-0,08 ^{N.S.}
Pain et céréales, portions	0,04 ^{N.S.}	0,23**
Aliments sucrés n'appartenant pas à un groupe du Guide alimentaire canadien et consommés entre les repas, fréquence	0,24***	0,27***
Aliments sucrés n'appartenant pas à un groupe du Guide alimentaire canadien et consommés pendant et entre les repas, fréquence	0,19**	0,23**
Repas et collations, nombre	0,19**	0,18**
Collations, nombre	0,25***	0,23**
Collations contenant des sucreries, nombre	0,26***	0,25***
Sucreries solides pendant les repas, fréquence	-0,14*	-0,18*
Sucreries solides entre les repas, fréquence	0,26***	0,25***
Sucreries liquides entre les repas, fréquence	0,18**	0,18**
Sucreries solides et liquides pendant les repas, fréquence	-0,17*	-0,19**
Sucreries solides et liquides entre les repas, fréquence	0,29**	0,28***
Gommes à mâcher sucrées entre les repas, nombre	0,24**	0,16*
Gommes à mâcher sucrées à la fin et entre les repas, nombre	0,22**	0,16*
Bonbons à la fin et entre les repas, nombre	0,10 ^{N.S.}	0,19**
Bonbons entre les repas, nombre	0,11 ^{N.S.}	0,20**
Chocolat entre les repas, grammes	0,24**	0,12 ^{N.S.}
Chocolat pendant et entre les repas, grammes	0,22**	0,10 ^{N.S.}
Biscuits glacés pendant les repas, nombre	0,19**	0,12 ^{N.S.}
Biscuits glacés entre les repas, nombre	0,10 ^{N.S.}	0,16*
Boissons aromatisées et eaux gazeuses pendant les repas, millilitres	0,13*	0,24**
Boissons aromatisées et eaux gazeuses entre les repas, millilitres	0,08 ^{N.S.}	0,15*
Boissons aromatisées et eaux gazeuses pendant et entre les repas, millilitres	0,14*	0,25***
Thé et café sucrés entre les repas, portions.	0,14*	0,11 ^{N.S.}

consommations moyennes de sucreries, exprimées en équivalents de sucre, ont été estimés à 10,5 et à 7 cuillérées à thé par jour pour les adolescents et les adolescentes québécoises respectivement, ce qui représente un surplus de 10 pour cent chez les garçons et de 50 pour cent chez les filles par rapport aux moyennes nationales pour les mêmes groupes¹⁰.

Relation entre l'alimentation et la carie

Des coefficients de corrélation ont été calculés afin de mesurer la relation linéaire entre les variables alimentaires et la carie, exprimée soit par l'indice CAO, soit par le nombre de dents cariées. Seules les variables indépendantes pour lesquelles le coefficient de corrélation est significatif à un seuil de probabilité égal ou inférieur à 0,05 ont été inscrites au **tableau 4**. Les indices CAO ont été présentés dans une publication antérieure⁴. L'indice CAO moyen pour les sujets de l'étude s'élève à 12,81. L'état dentaire est caractérisé par un nombre élevé de dents absentes⁴ et par un manque d'hygiène²⁴.

Les relations les plus fortement significatives avec l'indice CAO ($P \leq 0,001$) sont positives et concernent les variables alimentaires suivantes: le nombre total de collations, le nombre de collations contenant des sucreries et la fréquence de consommation de sucreries entre les repas, qu'il s'agisse de sucreries solides, des sucreries solides et liquides, ou d'aliments sucrés n'appartenant pas à un groupe du Guide alimentaire canadien. L'indice CAO est également relié positivement à la consommation de certains aliments spécifiques tels que le chocolat et les gommes à mâcher sucrées entre les repas ou à la fin d'un repas ($P \leq 0,01$). Par ailleurs, la quantité de lait consommée et la fréquence de consommation de sucreries pendant les repas sont négativement corrélées avec l'indice CAO ($P \leq 0,05$).

La plupart des variables alimentaires significativement reliées à l'indice CAO le sont aussi avec le nombre de dents cariées. Cependant, il faut noter les deux principales différences observées: la consommation de chocolat pendant ou entre les repas est reliée à l'indice CAO et non au nombre de dents cariées, alors qu'à l'inverse la consommation de bonbons à la fin des repas ou entre les repas est reliée au nombre de dents cariées et non à l'indice CAO. Il est possible que la consommation de bonbons ou pastilles comme moyen de rafraîchir l'haleine soit une habitude relativement récente chez les adolescents de l'étude, âgés en moyenne de 13,9 ans, et soit donc davantage à l'origine des nouvelles caries que des caries plus anciennes reflétées

† Nombre de sujets: 149

‡ Seules les variables dont le coefficient de corrélation, soit avec l'indice CAO, soit avec le nombre de dents cariées, est significatif ($P \leq 0,05$) ont été notées.

§ Le degré de signification est indiqué de la façon suivante: $P \leq 0,001$:*** $P \leq 0,01$:** $P \leq 0,05$:* $P > 0,05$:N.S.

par le nombre de dents absentes ou obturées. On peut croire, d'autre part, que l'habitude de consommer du chocolat serait plus ancienne et donc reliée plus globalement à l'indice CAO.

Clancy et ses collaborateurs¹⁸ ont conduit une étude afin de vérifier la relation entre la fréquence de consommation de certains aliments, les caractéristiques socio-économiques et la carie dentaire, au début et à la fin d'une période de 12 mois, chez 143 adolescents âgés de 12,5 ans en moyenne et soumis à un examen dentaire à la fin de chaque année scolaire. Dans cette étude, le chocolat était l'aliment ayant la corrélation la plus élevée avec les caries dentaires. L'augmentation de la carie dentaire au cours des 12 mois était reliée positivement avec le total de l'argent de poche et négativement avec la consommation de pommes, de jus de fruits et de gommes à mâcher sans sucre. Il y avait, par ailleurs, de fortes corrélations entre la fréquence de consommation de chocolats, de caramels, de friandises et de gommes à mâcher et le fait que ce soit l'enfant lui-même qui ait acheté l'aliment sucré.

Plusieurs autres auteurs^{12,13,14,15,16,17} ont démontré des relations entre le mode d'alimentation, certains indices socio-économiques et l'incidence de la carie dentaire chez des enfants et des adolescents. Dans ces études, la fréquence des goûters contenant des sucreries et la scolarité des parents étaient parmi les facteurs les plus reliés à la carie dentaire.

Conclusion et recommandations

L'alimentation des sujets de la présente étude comporte des déficiences en produits laitiers, en fruits et légumes frais et en produits céréaliers à grains entiers. Le comportement alimentaire de ces adolescents favorise la carie dentaire, étant caractérisé par une fréquence très élevée de consommation d'aliments sucrés, soit six fois par jour en moyenne. Les collations sont très fréquentes et elles contiennent souvent des sucreries concentrées telles que chocolat, gommes à mâcher sucrées, bonbons, gâteaux glacés et boissons gazeuses. Les corrélations sont évidentes entre la carie et la fréquence de consommation d'aliments sucrés entre les repas sous forme solide ou liquide. Les quantités de chocolat, de gommes à mâcher sucrées et de boissons sucrées sont corrélées positivement avec l'indice CAO. De plus, la consommation de bonbons à la fin des repas et entre les repas est positivement corrélée avec le nombre de dents cariées.

Dans le but de réduire l'incidence de la carie dentaire chez les jeunes Québécois, il s'avère donc nécessaire, dans les programmes de prévention, de considérer l'alimentation au même titre que les autres facteurs. Plusieurs auteurs^{27,28,29,30,31} y compris des dentistes praticiens^{32,33} proposent différentes façons de rendre le counseling alimentaire applicable à la pratique privée et considèrent cette intervention comme faisant partie intégrante d'un programme de contrôle de la carie dentaire.

Il est également de première importance que les autori-

tés scolaires reconnaissent l'opportunité d'établir une politique alimentaire concernant tant les cafétérias que les distributeurs automatiques, de façon à aider les élèves à sélectionner judicieusement les aliments qu'ils consomment à l'école.

En fonction des résultats de la présente étude, les mesures adoptées devraient viser principalement:

- à diminuer la fréquence de consommation de sucreries, en particulier, de chocolat, de gommes à mâcher sucrée, de bonbons et de boissons aromatisées et eaux gazeuses;
- à augmenter la consommation de fruits frais, de légumes crus et de lait tant aux collations qu'aux repas;
- à promouvoir la consommation de pain et céréales à grains entiers.

BIBLIOGRAPHIE

1. Payette, M. Étude des indices CAO des dents des enfants et des adolescents de la région centre et centre-sud de Montréal. *Journal dentaire du Québec*, juin-juillet 1981: 51-59.
2. Infante-Rivard, C. et M. Payette. La carie, la malocclusion, les maladies périodontaires: étude longitudinale. *Journal de l'Association dentaire canadienne* 11, 1980: 719-725.
3. Stamm, J.W., C.T. Dexter et R.P. Langlais. Principal dental health indices for 13-14 year old Quebec children. *Journal de l'Association dentaire canadienne* 2, 1980: 125-137.
4. Lachapelle-Harvey, D. Données sur l'état dentaire d'un groupe d'adolescents de Charlesbourg. *Journal de l'Association dentaire canadienne* Vol. 9, 1982, p. 593-597.
5. Demirjian, A. La nutrition et la santé des dents de l'enfant québécois. *Journal dentaire du Québec* 11, 1974: 30-36.
6. Barmes, D.E. et L.K. Cohen. Current status of W.H.O./D.D.H. international collaborative study of dental manpower in relation to oral health status. *Community Dentistry and Oral Epidemiology* 2, 1974: 37-39.
7. De Paola, D.P. et M.C. Alfano. Diet and oral health. *Nutrition Today* 12, 1977: 6-32.
8. Canada, Santé et Bien-être social. *La dentisterie préventive: pratique, règles et recommandations*. Ottawa, 1981: 340 p.
9. Lussier, J.P. La fluoruration au Québec: rétrospective d'un échec. *L'union médicale du Canada* 110, 1981: 942-948.
10. Québec, Ministère des affaires sociales. *Une politique québécoise en matière de nutrition*. Québec, 1977: 89 p.
11. Gustafsson, B.E., C.E. Quensel, L.S. Lanke, D. Lunquist, H. Grahnen, B.E. Bonow et B. Krasse. Vipeholm dental caries study: effect of different levels of carbohydrate intake on caries activity in 436 individuals observed for five years. *Acta Odontologica Scandinavica* 12, 1954: 232-246.
12. Holm, A.K., C.G. Grossner, H. Grahnen et G. Samuelson. A comparative study of oral health as related to general health, food habits and socio-economic conditions of 4-year-old Swedish children. *Community and Oral Epidemiology* 3, 1975: 34-39.
13. Samuelson, G., H. Grahnen et G. Lindstrom. An epidemiological study of child health and nutrition in a northern Swedish country. V. Oral health studies. *Odontologisk Revy* 22, 1971: 189-220.

14. Weiss, R.L. et A.H. Trithart. Between-meal eating habits and dental caries experience in preschool children. *American Journal of Public Health* 50, 1960: 1097-1104.
15. Hankin, J.H., C.S. Chung et M.C. Kan. Genetic and epidemiologic studies of oral characteristics in Hawaii's schoolchildren: dietary patterns and caries prevalence. *Journal of Dental Research* 52, 1973: 1079-1086.
16. Koch, G. et T. Martinsson. Socio-odontologic investigation of schoolchildren with high and low caries frequency. I. Socio-economic background. *Odontologisk Revy* 21, 1970: 207-228.
17. Koch, G. et T. Martinsson. Socio-odontologic investigation of schoolchildren with high and low caries frequency. II. Parent's opinions of dietary habits of their children. *Odontologisk Revy* 22, 1971: 55-64.
18. Clancy, K.L., B.G. Bibby, H.J.V. Goldberg, L.W. Ripa et J. Barenie. Snack food intake of adolescent and caries development. *Journal of Dental Research* 56, 1977: 568-573.
19. Richardson, A.S., M.A. Boyd et R.F. Conry. A correlation study of diet, oral hygiene and dental caries in 457 Canadian children. *Community Dentistry and Oral Epidemiology* 5, 1977: 227-230.
20. Bright, J.S., S. Rosen, L. Diorio, W.A. Zacherl, R.D. Grainger et S. Gephart. Relationship of various dietary factors and dental caries. *Journal of Dental Research* 57, 1978: 151.
21. Bagramian, R.A., J. Jenny, P.J. Frazier et J.M. Proshek. Diet patterns and dental caries in third grade U.S. children. *Community Dentistry and Oral Epidemiology* 2, 1974: 208-213.
22. Bagramian, R.A. et A.L. Russell. Epidemiologic study of dental caries experience and between-meal eating patterns. *Journal of Dental Research* 52, 1973: 342-347.
23. Nie, N.H., C.H. Hull, J.G. Jenkins, K. Steinbrenner et D.H. Bent. *Statistical package for the social sciences*. McGraw-Hill Book Co., New-York, N.Y. 1975, 675 p.
24. Lachapelle-Harvey, D. Données sur les caractéristiques personnelles et familiales et sur les pratiques d'hygiène dentaire en fonction de l'état dentaire. *Journal de l'Association dentaire canadienne* Vol. 10, 1982, p. 667-674.
25. Canada, Santé et Bien-être social. *Nutrition Canada: Rapport sur les habitudes alimentaires*. Ottawa, 1975, 268 p.
26. Burkitt, D.D., A.R.P. Wajjer et N.S.I. Painter. Effect of dietary fibre on stools and transit times and its role in the causation of disease. *Lancet*, vol. II, 1972: 1408.
27. Nizel, A. Nutrition in preventive dentistry. *Science and practice*. W.B. Saunders Company, 1981, 611 p.
28. Randolph, P.M. et C.I. Dennison. *Diet, nutrition, and dentistry*. C.V. Mosby Company, 1981, 358 p.
29. American Academy of Pedodontics. *Changing perspectives in nutrition and caries research*. Medcom Inc. 1979.
30. De Paola, D. et M. Alfano. Triphasic nutritional analysis and dietary counseling. *Dental Clinics of North America* 20(3), 1976: 613-629.
31. Shaw, H. Nutritional guidance in the prevention of oral disease. *Dental Clinics of North America* 16(4), 1972: 733-746.
32. Wolf, M.C. et A. Van Stewart. Diet counseling in your practice. *Journal of the New Jersey Dental Association*. Hiver 1974: 19-21.
33. Truvert, M. Diet counselling to prevent caries. *Ontario Dentist*. (50)(8), 1973: 6-11.
34. Canada, Santé et Bien-être social. *Nutrition Canada: Compte rendu de l'étude menée au Québec*. Ottawa, 1975, 172 p.

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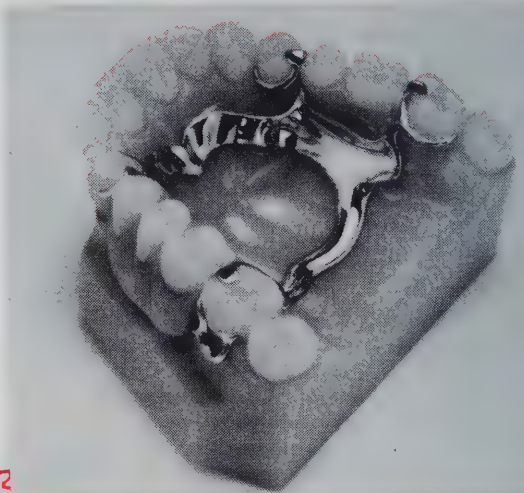
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Meeting of the Canadian Academy of Prosthodontics, Vancouver, B.C., September 22-24, 1983. Contact: Dr. B.M. Jackson, 22 Water Street S., Kitchener, Ontario N2G 4K4.

The Canadian Academy of Restorative Dentistry annual meeting, Vancouver British Columbia, September 23-24 1983. Theme this year is "Esthetics — A Multi-disciplinary Approach." Contact: Dr. Terry Kline, 1505-805 West Broadway, Vancouver B.C. V5Z 1K1.

The Bytown Study Club in Ottawa Ontario presents Dr. John Flocken for a one day lecture and one day participation course on electro-surgery. September 23-24, 1983. Contact: Dr. D.J. Smith, 613-232-7880 for information.

The Royal College of Dentists of Canada is holding its annual meeting, convocation and annual dinner September 23-24, in Vancouver British Columbia. Contact: Kay Montgomery, Executive Secretary, The Royal College of Dentists of Canada, Suite 614, 170 St. George St. Toronto, Ontario, M5R 2M8, (416) 964-7263 for more information.

The Association of Prosthodontists of Canada, Annual Meeting, September 24-25, in Vancouver, B.C. Program Chairman: Dr. D. Donaldson, Faculty of Dentistry, University of British Columbia.

The XI Psi Phi Dental Fraternity (British Columbia Chapter) will hold a luncheon meeting in Vancouver, B.C. September 25. Social Suite East, Hotel Vancouver. Contact: M. J. T. Donan, 2760 Beach St., Victoria, B.C. V8R 6K5.

The Royal College of Dentists of Canada Symposium on Periodontal Diseases, generously supported by Colgate-Palmolive Canada, as part of the Canadian

Dental Association's National Convention, Vancouver, B.C., Monday, September 26, 1983. The keynote speaker for the Symposium will be Dr. Harald Loe, newly appointed Director of the National Institute of Dental Research, Bethesda, Maryland, and presently Dean of the School of Dental Medicine at The University of Connecticut.

First International Symposium on: "Today's Research, Tomorrow's Health Care Delivery." At Faculty of Dentistry, Dalhousie University, Halifax, N.S. September 30 — October 1. Contact: International Symposium, Anniversary 75, Continuing Education Office, Faculty of Dentistry, Dalhousie University, Halifax, N.S. B3H 3J5. Telephone (902) 424-2248 or 424-6507.

Canadian Dental Association 1983 National Convention/l'Association dentaire canadienne Congress Nationale, Vancouver British Columbia, September 25-28 1983.

October/octobre

The Canadian Academy of Endodontics is holding its annual general meeting Winnipeg Manitoba, October 14-16, 1983. Contact: Dr. W. H. Christie, 233 Kennedy St. Suite 506, Winnipeg Man. R3C 3J5.

The Canadian Pain Society annual meeting and multidisciplinary conference on pain, Saskatoon, Saskatchewan, October 14-16 1983. Contact: Pain '83, Conference Office, Kirk Hall 105, University of Saskatchewan, Saskatoon, Saskatchewan, S7N 0W0 for more information.

November/novembre

The 25th Anniversary Symposium entitled "Will Basic Research Influence Clinical Dentistry in the Future?", Faculty of Dentistry, University of Manitoba, Winnipeg, Manitoba. November 18-19 1983. Contact Dean, Dr. A. Schwartz, Faculty of Dentistry, University of Manitoba, 780 Bannatyne Ave., Room D-113, Winnipeg, Man. R3E 0W3. Phone 204-786-3631.

Toronto Academy of Dentistry Annual Winter Clinic, Royal York Hotel, Toronto Ont. November 24, 1983. Contact: Academy of Dentistry, 234 St George St. Toronto Ont. M5R 2P2, Telephone 416-967-5649.

International

September/septembre

The Seventh Annual Conference on En-

dodontics, University of Pennsylvania, Philadelphia PA., September 12-15 1983. Contact: University of Pennsylvania, School of Dental Medicine, Division of Continuing Education, 4001 Spruce St. Philadelphia PA. USA 19104.

The 4th Congreso Internacional de Ortodoncia, Buenos Aires, Argentina, September 16-21, 1983. Plaza Hotel. Contact Sociedad Argentina de Orthodoncia, Montevideo, 971 (1019) Buenos Aires, Argentina.

The American Academy of Implant Dentistry 1983 Annual Meeting/World Assembly, Sheraton Washington Hotel, Washington D.C. September 18-23 1983. For information and registration, contact: the American Academy of Implant Dentistry, 515 Washington St., P. O. Box 2002, Abington, Massachusetts, 02351, (617) 878-7990.

The American Academy of Periodontology 69th Annual Meeting, Atlanta Georgia, September 28-October 1, 1983. Contact: the American Academy of Periodontology, 211 E. Chicago Ave. Room 924. Chicago Illinois, 60611, USA. 312-787-5518.

The 21 Deutscher Zahnarztetag (German Dental Meeting), Berlin September 29-October 1 1983. Contact: Prof. Dr. Peter Shulz, Universitätsstraße 73, 5000, Köln, 41, (Lindenthal) Telephone, (0221) 401041.

International Association for Orthodontics-American Orthodontic Society combined annual meeting, Westin Hotel, Copley Plaza, Chicago Illinois, September 29-October 2, 1983. Contact: International Association for Orthodontics, 211 E. Chicago Ave, Suite 915, Chicago Ill. 60611 (312) 642-2602.

October/octobre

American Dental Association 124th Annual Session, Anaheim, California, October 1-6 1983. Scientific Session October 1-4. Contact: Council on International Relations, American Dental Association, 211 E. Chicago Ave., Chicago, Illinois, 60611. (312) 440-2726 for more information.

The First South African Endodontic Congress, Johannesburg, South Africa, October 2-7, 1983. Post Congress tours are also available. Contact either: Westpoint Travels Ltd, 11 Biccarrd St. (Corner Smit St.) Braamfontein, 2001, South Africa. or South African Tourist Corporation, 20 Eglinton West, Toronto, Ont. Phone: 416-482-7077.

The Prosthodontics Research Group of the International Association for Dental Research announces the continuation of its Novice Award. Sponsored by the Coors Biomedical Company, the award is \$1,000. Eligible participants are those making their first presentation at the IADR/AADR meeting in Dallas, Texas March 15-18, 1984. Abstracts due no later than **October 4, 1983.** Contact: Dr. John Houston, 700 Bay St. Suite 404, Toronto Ont. M5G 1Z6.

UCLA Extension and UCLA School of Dentistry holding the West Coast Conference on Geriatric Dentistry, Sheraton Plaza La Reina Hotel, Los Angeles, California, October 21-23, 1983. Contact: Ronald L. Linder, Continuing Education in Health Sciences, UCLA Extension, P. O. Box 24901, Los Angeles, California, 90024.

Seventh Annual American Dental Association Conference on Foods, Nutrition and Dental Health. Chicago, Illinois, October 27, 28 at Harold Hillenbrand Auditorium, 211 East Chicago Ave. Abstracts of research findings related to food cariogenicity and technology may be submitted for oral or poster presentation. Contact Joan C. Sayers, Staff Coordinator, FNDH Program Research Institute, ADA Health Foundation at the above address, in Chicago, Ill. 60611, or telephone (312) 440-2530.

The XVII National and International Congress of the Mexican Dental Association, Mexico City, Mexico, October 30-November 2, 1983, at the National Medical Centre. Scientific program includes nine courses, 27 free papers and 90 table clinics. Contact: Dr. Santiago Lopez Bago, Promotion Committee, Association Dental Mexicana, A.C., Ezequiel Montes 92, 06030 Mexico, DF.

November/novembre

Fédération Dentaire Internationale, 71st Annual World Dental Congress, Tokyo Japan, November 14-20, 1983. Contact: Japan Dental Association, 1-20, Kudan-Kita 4-chome, Chiyoda-ku, Tokyo 102, Japan.

December/décembre

NIH Consensus Development Conference on Dental Sealants in the Prevention of Tooth Decay, Bethesda, Maryland, December 5-7, 1983. ACRF Amphitheatre, Warren Grant Magnuson Clinical Centre, National Institute of Health. Sponsored

by the National Institute of Dental Research and the NIH Office of National Applications of Research. Contact: Peter Murphy, Prospect Associates, Suite 401, 2115 East Jefferson St., Rockville, Maryland, 20852, (301) 468-6555.

1984+

The Centre of Pediatric Dentistry is organizing the "Second Dominican Congress of Pediatric Dentistry" in Santo Domingo, January 27-29 1984. Congress themes are Prevention and Clinical Aspects. Fees are \$50 U.S. Contact: Dr. Franklin Garcia-Godoy, Centre de Odontologie Pédiatrique, P.O. Box 2753 Santo Domingo, Dominican Republic, Telephone 809-689-4277 afternoons and evenings.

Miami Winter Meeting, Fontainebleu Hilton, Miami Beach Florida, February 2-4 1983. This is a program for international clinicians. Contact: the East Coast District Dental Society, 420 S. Dixie Highway, Suite 2-E, Coral Gables, Florida, 33146.

La Commission d'Études Biomatériaux créée par le Centre Français de la Corrosion (Cefracor) organise à Strasbourg Germany au Palais de Conseil de l'Europe sur le thème "Corrosion et dégradation des biomatériaux et leurs incidences cliniques." les 5-7 Mars 1984. Pour tous renseignements s'adresser au Secrétariat du CEFRACOR, 28 rue Saint Dominique 75 07 PARIS. Tél: 705.10.73 ou 705.39.26.

Advanced Paedodontics Course 338, The British Council, London/Newcastle Upon Tyne, March 18-30, 1984. Contact: The British Council, c/o The British High Commission, 80 Elgin St., Ottawa, Ont. K1P 5K7.

Canadian Dental Association 1984 National Convention/l'Association dentaire canadienne congress nationale, 1984. Montreal Quebec, April 8-12, 1984. Contact Dr. Morton Lang, 3565 Berri St. Suite 200, Montreal Que, H2L 4G3. Phone: (514) 842-9112.

International Association of Oral Pathologists general meeting, to be held in Noordwijkerhout, the Netherlands, June 4-7 1984. Contact: Congress Secretaria, 2nd Meeting of the International Association of Oral Pathologists, c/o Mrs. R. Mooijen, AZVU Pathologisch Instituut, De Boelelaan 1117, MB Amsterdam, the Netherlands.

Ninth Annual Congress of Dietetics, Toronto, Ontario, July 1-6, 1984. Hilton Harbour Castle Hotel. Topics covered will be varied. Continuing Education

credits will be assessed for ADA and CDA registered dietitians. Contact: Congress Canada, Suite 603, 250 University Ave., Toronto, Ont. 416-591-1498.

The New Zealand Dental Association is holding its biennial conference, Auckland New Zealand, August 12-17 1984. Contact: Dr. N. P. Ewart, Conference Secretary, P.O. Box 28085 Auckland 5, New Zealand.

72nd Annual World Dental Congress of the FDI, Helsinki, Finland, August 25-31, 1984. Contact FDI '84, Hallitusk 8, SF 00100, Helsinki 10, Finland.

11th Asian Pacific Dental Congress, Excelsior Hotel, Hong Kong, November 5-10 1984. Contact: Congress Secretariat, International Conference Consultants, 57, Wyndham St. 1st Floor, Central, Hong Kong.

Second International Conference "Clinical Factors and Mechanisms Influencing Bone Growth", University of California, Los Angeles, January 1985. Abstracts submitted no later than June 30, 1984. Contact: Andrew Dixon or Bernard Sarnat, Dental Research Institute, School of Dentistry, School of Medicine, Centre for Health Sciences, University of California, Los Angeles, (UCLA), Los Angeles, California, 90024.

Canadian Dental Association 1985 National Convention/l'Association dentaire canadienne, congress nationale 1985, Ottawa Ontario, September 29-October 2, 1985.

Scandinavia's largest international trade fair, "Swedental '84" will be held in Stockholm Sweden, November 14-16 1984. Contact Stursberg/Hewitt/Radley, U.S. Representatives, 6671 Sunset Blvd. Suite 1525, Los Angeles California. 90028, 213-462-6260.

The Indian Dental Association is presenting its 39th annual conference, Bombay India, last week of December 1984. Contact: Dr. L. K. Ghandi, Conference Secretary, 39th IDA Conference, C-56 N.D.S.E. Part-II, New Delhi, 110049.

The 24th Australian Dental Congress will be held in Brisbane Australia May 12-17 1985. The Congress is hosted by the Australian Dental Association. Contact: The Congress Secretariat, P.O. Box 29, Parkville, Vic. Australia, 3052.

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ALBERTA — Edmonton. Well established preventative practice in downtown location. For sub-lease, associateship or sale. Owner returning to school for four year period. High percentage adult patients, 70 per cent with insurance. Contact Dr. K. Klem, 510 Empire Building, Edmonton, Alta., T5J 1V9. Phone 422-2783, Res. 466-8533.

ONTARIO — General practice available for minimum investment (\$30,000). Owner retiring for health reasons. Approx. 500 sq. ft. Two operatories — with new Weber equipment in one and other with older Weber and new chair. Lots of room for expansion. Ideal set-up for a shopping centre dental concept. Apply Box No. 2174.

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NOVA SCOTIA — For Sale: High quality general practice in Nova Scotia's beautiful Annapolis Valley. This is an excellent practice, both for a new graduate or experienced general practitioner. Is fully equipped and modern. CDA Box No. 2169.

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BRITISH COLUMBIA — Associate wanted. Mature individuals needed for large group practice in Prince George and surrounding area. Exceptional opportunity with excellent benefits. Interested persons please contact: Dr. Frank Lo or Dr. Richard Suen, 4122 — 15th Ave., Prince George, B.C. V2M 1V9.

ALBERTA — Associate leaving. Require new associate in very busy practice. Contact Dr. Azarko, 14938 Stony Plain Rd. Edmonton. Phone (403) 483-7079.

ALBERTA — Associateship. Busy general practice 2 hours north of Edmonton, Alta. Well established. Option to buy in as partner. For information, contact Dr. Eldon Hickerty, Box 1459, Slave Lake, Alta. T0G 2A0 or call (403) 849-2233 or (403) 849-4510.

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ONTARIO — Associate wanted to take over a well established practice in Kingston. Please contact Dr. D. A. Anderson, 277 King St. East, Kingston, K7L 3B1. Phone: 613-546-4760.

ONTARIO — Hamilton. Full-time associateship position available immediately. Excellent working environment in large, modern, group practice. High earning capabilities. Contact (416) 387-5333 or (519) 434-7755 or write Box No. 2170.

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BRITISH COLUMBIA — Victoria. Dentist. Salaried, four-day week, fully equipped clinic, begin September. Fernwood Dental Clinic, 1291 Gladstone Avenue, Victoria, B.C. V8T 1G5, 604-384-2043.

ONTARIO — Toronto. University of Toronto. Faculty of Dentistry invites applications from cell biologists for a tenure-track position at Assistant Professor level. Candidates should have a Ph.D. in cell biology or a related subject, at least two years of post-doctoral training and a minimum of three years additional experience in this field. Preference will be given to persons with a demonstrated record of productive research in a dental sciences environment and with a demonstrated capacity for teaching and supervision of graduate students. Successful applicant will be expected to conduct research in connective tissue biology related to dentistry and to teach in this area. Applications, with complete C.V., list of publications and the names of three references, should be directed to Dr. B.J. Sessle, Chairman, Division of Biological Sciences, Faculty of Dentistry, University of Toronto, Toronto, M5G 1G6, Canada. Closing date for applications is September 15, 1983. In accordance with Canadian Immigration requirements, this advertisement is directed to Canadian citizens and permanent residents.

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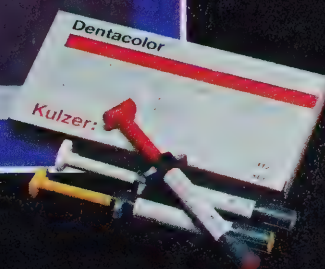
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September
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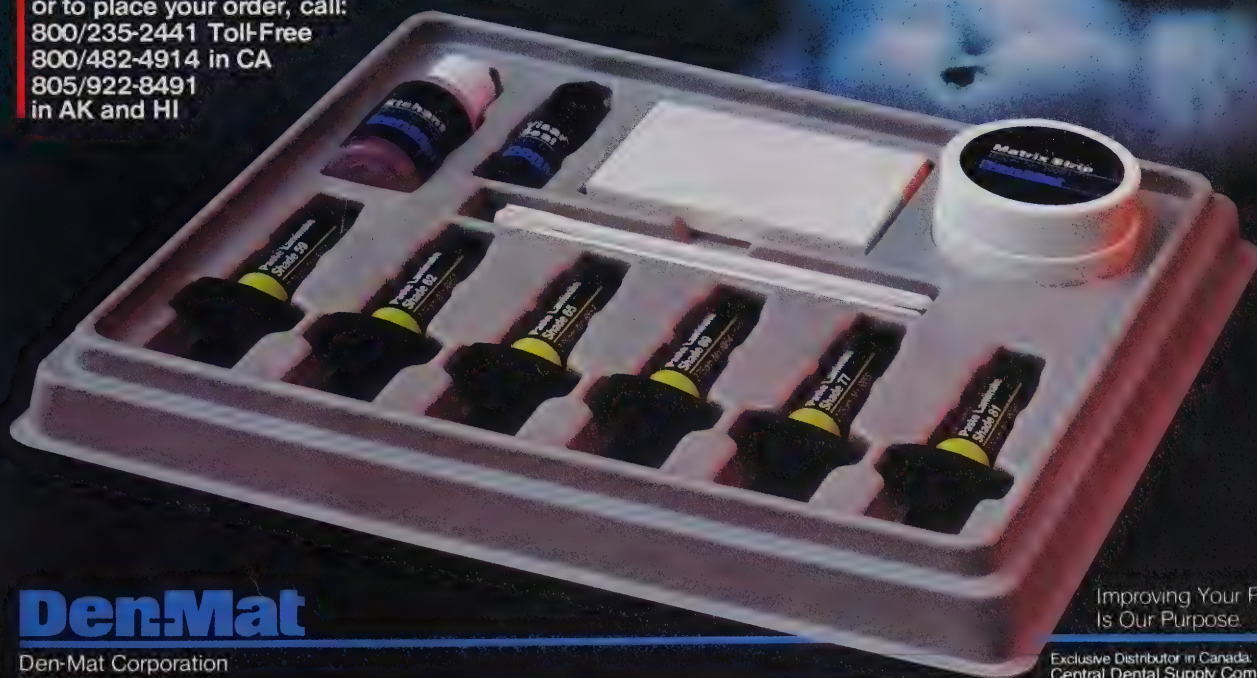
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References: 1. Ostrom, C.A. et al., J Dent Res, 56(3):212-221, 1977. 2. Arends, J., ten Cate, J.M., J Cryst Gro, 53:135-147, 1981. 3. Silverstone, L.M., Caries Res, 11 (Suppl. 1):59-84, 1977. 4. Data on file at Procter & Gamble, Inc. 5. Mobley, M.J., J Dent Res, 60(12):1943-1948, 1981. For further information, please contact Crest Professional Services, P.O. Box 355, Station A, Toronto, Ontario M5W 1C1.

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Editorial

- 597 Dr. A.D. Sparrow urges that plans be made to ensure enough high quality continuing education programs to meet future needs of Canadian dentists.

Letters to the Editor

- 605 The editor is complimented for the May edition cover photo of an old-fashioned operatory, by Dr. J.H. Peters.
- Dr. T.W. Rice is disappointed that there appear to be two missing topics of wide interest in the CDA Convention's scientific program.
- Dr. William G. Abbott adds comments on the June edition scientific article, "Dental care for cancer patients."

In the News

- 609 **CDA Library/Resource Centre is providing broader services and attracting greater number of requests**
- Under the direction of the new CDA Librarian, Ms. Trudi DiTrollo, the Library/Resource Centre has been receiving complimentary comments for the new services being offered.

- 610 **Real World of Claims — CDSPI**
- This article explains what to do if your dental office suffers fire, water and smoke damage.

- 612 **Continuing Education courses available**
- Courses being conducted during the next few months at several of the faculties of dentistry, and other locations.

- 621 **Les Journées Dentaire breaks attendance record**
- Les Journées Dentaire du Québec, held in Montréal May 28-June 1, set an attendance record this year.

- 623 **Hepatitis B has become a world concern**
- The World Health Organization, following a recent meeting on the prevention of liver cancer, has issued a statement linking liver cancer to the incidence of Hepatitis B virus.

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- 647 **The undergraduate teaching program — does it change personality?**
— Marcia A. Boyd

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- 629 **Introductory Statistics for Dentistry and Medicine**
- "Both undergraduate and graduate students in the health sciences will find this book a valuable asset, as will the practitioners."
- R.E. McDermott
- Test-Taking Skills in Dentistry**
- "I would recommend this book to students who want to improve test performance and for teachers who are serious about increasing the accuracy and reliability of their testing."
- Marcia A. Boyd

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- 627 The CDA Library/Resource Centre lists new library acquisitions, journal subscriptions and a new photocopying service.

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Continuing
Education

Restorative dentistry



Continuing education
Éducation permanente
Restorative dentistry
Dentisterie restauratrice

Published monthly by the Canadian Dental Association at 1815 Alta Vista Drive, Ottawa, Ont. K1G 3Y6. Copyright 1982 by the Canadian Dental Association. Authorized as Second Class Mail Registration Number 5384. Postage paid at Ottawa.

Notice of change of address should be received before the 10th of the month, to become effective the following month.

Subscriptions: All subscriptions payable in advance in Canadian funds in Canada — \$35; United States — \$35; all other — \$38. Subscriptions are for 12 editions, not necessarily conforming with the calendar year.

All statements of opinion and supposed fact are published on the authority of the author who submits them and do not necessarily express the views of the Canadian Dental Association, unless such statements or opinions have been adopted by the Association. The editor reserves the right to edit all copy submitted to the Journal.

ISSN0709 8936

Éditorial

- 598 Le Dr A.D. Sparrow demande aux dentistes de s'assurer que les cours donnés en éducation permanente soient d'assez bonne qualité pour répondre aux besoins futurs des dentistes canadiens.

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- 631 **La Bibliothèque et le Centre de documentation de l'ADC comptent une clientèle plus nombreuse**
D'octobre 1982 à mai 1983, les praticiens privés ont fait 430 demandes en tout.
- 632 **La vérité touchant les demandes d'indemnité-CDSPI**
Un cabinet dentaire est grandement endommagé par le feu, et la fumée. Seul le plafond tient.
- 633 **Assistance record aux Journées dentaires du Québec**
Les Journées dentaires du Québec qui ont lieu à Montréal du 28 mai au 1^{er} juin 1983, ont connu un succès sans précédent.

- 635 **L'hépatite virale B: un problème mondial**
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- 636 **En bref**
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- 630 **Abrégé des urgences médicales au cabinet dentaire**
Ce livre "traite à fond le sujet. Il est en général bien divisé."
— Drs Daniel Morelli et André Charest
- 627 **Bibliothèque et Centre de documentation de l'ADC**
La Bibliothèque et le Centre de documentation de l'ADC présentent une liste des nouveaux titres et abonnements maintenant disponibles à la bibliothèque de l'ADC. Aussi, à compter de maintenant, la bibliothèque photocopiera la table des matières des revues les plus importantes et les plus demandées qu'elle reçoit, et à titre de service spécial, fera parvenir des photocopies aux membres intéressés.
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La direction du Journal ne partage pas nécessairement les opinions qu'expriment ses collaborateurs à moins que l'Association Dentaire Canadienne ne les ait adoptées officiellement.

Photo de la couverture: Voir l'historique en Page 637



Éducation
permanente

Dentisterie
restauratrice

Continuing education
Éducation permanente
Restorative dentistry
Dentisterie restauratrice

C

ontinuing education

In the past it was not uncommon for a dental graduate to practise his profession for a life time, and not ever darken the doors of an institution of learning in the interval. That is not to say that the learning process was at a standstill for all those years since experience is a great teacher, and much was added to the basic skills acquired.

This situation has been true of many of the professions, and continued to be so until recent years, when, the flood of technological advances, chemical refinements and even a new understanding of what we had always assumed to be basic, changed the speed of progress.

This explosion of knowledge in all fields shattered the quiet of a rather staid profession, together with the proliferation of demands for more sophisticated dentistry on the part of the public.

The pressure has been increasing to the point where some provinces have made continuing education mandatory for renewal of licensure to practise.

The usual concern is that a certain number of hours of organized clinical, or scientific instruction be undertaken over a period of five years.

This almost certainly will become the rule of the future rather than the exception. It becomes the responsibility of the dentist to ensure that the rule is effective in maintaining a high and improving level of competence among his confreres.

The greatest danger, it seems to me, is that not enough high quality programs will be available to meet the needs of today let alone the future, and that mediocrity may become the rule.

How to ensure the success of a sensible and effective continuing educational program in dentistry should be the overriding concern of the local, regional and national bodies in our profession.

Without a good deal of attention such a comprehensive mandatory continuing education program can become just another bureaucratic nightmare without benefit to the public whom we serve, or to the profession of which we are justly proud.

*This editorial was written
by Dr. A. D. Sparrow,
a member of CDA's
Editorial Board.*

*Dr. Sparrow is engaged in
the specialty practice of oral
surgery in Calgary, Alberta.*

L'ÉDUCATION PERMANENTE

Dans le passé, un diplômé dentaire exerçait généralement sa profession toute sa vie sans jamais, entre-temps, franchir les portes d'une maison d'enseignement. Certes, ceci ne voulait pas dire qu'il n'apprenait plus rien. L'expérience, après tout, est un grand maître et, à ses connaissances de base, un praticien en ajoutait beaucoup d'autres au cours de sa carrière.

Cette situation a prévalu pour un grand nombre de professions et s'est maintenue jusqu'à il y a peu d'années. Puis, la technologie connaissant un essor remarquable, les sciences de la chimie se perfectionnant et même les connaissances de base étant perçues sous un jour nouveau, le progrès s'est accéléré.

Dans tous les domaines, on a assisté à une explosion du savoir et celle-ci a ébranlé les fondements d'une profession plutôt stable, la dentisterie. En outre, le public s'est mis à réclamer des services dentaires plus sophistiqués.

La pression est devenue telle que certaines provinces ont cru bon d'imposer l'éducation permanente pour le renouvellement des permis d'exercer.

En règle générale, on exige que, durant une période de cinq ans, le dentiste suive un nombre donné d'heures de cours cliniques ou scientifi-

ques. Maintenant une exception, cette exigence deviendra, semble-t-il, la règle à l'avenir.

C'est pourquoi il incombe au dentiste de s'assurer que cette mesure est valable pour maintenir, parmi ses confrères, un degré de compétence sans cesse plus élevé.

À mon avis, le plus grand danger consiste à ce qu'il n'y ait pas assez d'excellents programmes pour répondre aux besoins actuels, sans parler de ceux de l'avenir. La médiocrité risque alors de devenir la règle.

Comment s'assurer que le programme d'éducation permanente en dentisterie soit sensé et efficace devrait constituer la préoccupation majeure des organismes locaux, régionaux et nationaux de notre profession.

Sans une attention soutenue de notre part, un programme d'éducation permanente obligatoire peut se transformer en un autre cauchemar bureaucratique, sans aucun profit pour le public que nous servons ou pour la profession dont nous sommes, à juste titre, si fiers.

L'éditorial est dû à la plume du Dr. A. D. Sparrow, membre du nouveau Conseil éditorial de l'ADC. Le Dr Sparrow est un spécialiste en chirurgie bucco-dentaire exerçant à Calgary, en Alberta.

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Calories (Kcal)	9
Carbohydrates (g)	0.1
Protein (g)	1.6
Fat (g)	0
Aspartame (mg)	60

Serving (mL)	125
Calories (Kcal)	9
Carbohydrates (g)	0.1
Protein (g)	1.7
Fat (g)	0
Aspartame (mg)	60

Serving (mL)	125
Calories (Kcal)	8
Carbohydrates (g)	0
Protein (g)	1.6
Fat (g)	0
Aspartame (mg)	60

Serving (mL)	125
Calories (Kcal)	9
Carbohydrates (g)	0
Protein (g)	1.6
Fat (g)	0
Aspartame (mg)	60

Serving (mL)	125
Calories (Kcal)	68
Carbohydrates (g)	11.8
Protein (g)	4.5
Fat (g)	0.2
Aspartame (mg)	75

Serving (mL)	125
Calories (Kcal)	69
Carbohydrates (g)	11.9
Protein (g)	4.5
Fat (g)	0.2
Aspartame (mg)	75

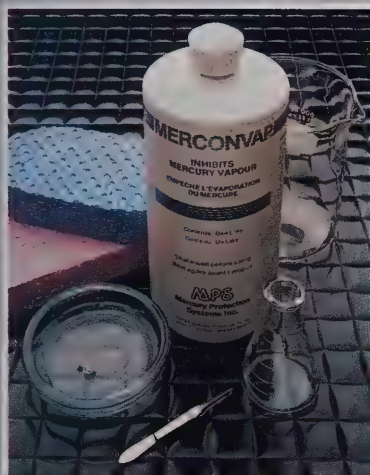
Serving (mL)	125
Calories (Kcal)	77
Carbohydrates (g)	13.3
Protein (g)	5.4
Fat (g)	0.8
Aspartame (mg)	75

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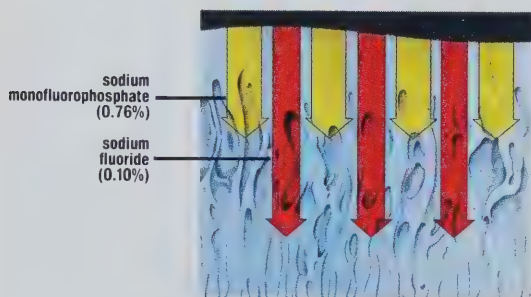
How Colgate's two fluoride formula achieves more complete remineralization resulting in nearly double the cavity protection of a single fluoride formula.*

A major role of fluoride in cavity prevention is to accelerate the process by which demineralized enamel is rebuilt (1-4). This reverses white spot lesions which would otherwise become cavities.

Today's Colgate is the first toothpaste with two fluorides—sodium monofluorophosphate at 0.76% and sodium fluoride at 0.10%. Their differing molecular structures mean these fluorides work at different levels in tooth enamel. The result, at these concentrations, is more complete remineralization of white spot lesions than either can achieve alone.

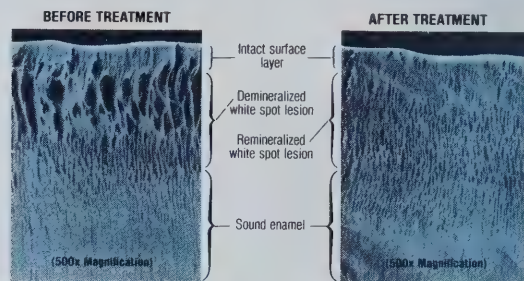
Why these two fluorides remineralize more completely.

Fluorides reach white spot lesions by penetrating enamel through the interprismatic spaces. Sodium monofluorophosphate, being a larger molecule, reacts with enamel primarily at the surface of a white spot lesion. Sodium fluoride, a smaller molecule, penetrates deeper into the lesion.



Because they work at different levels the two fluorides complement each other, enhancing remineralization over a greater area of the lesion than a single fluoride* alone.

This complementary action means more fluoride is available to enhance remineralization over a greater area of the lesion, than is provided by either fluoride alone (5,6).



This more complete remineralization has been demonstrated in laboratory studies (7), and can be seen in the photomicrographs above.

Clinical studies show nearly double the cavity reduction.

Colgate with this two fluoride concept was tested in a three year clinical study (8). The results—Colgate's two fluoride formula provided 27.0% reduction in new caries versus 13.8% for the single fluoride positive control* (DMFT).

Conclusion.

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When you recommend Colgate you're recommending an innovative product—offering advanced and clinically tested cavity protection.

*Sodium monofluorophosphate (0.76%)

REFERENCES

1. Silverstone, L.M., Proc. Roy. Soc. Med., **65**, 906, 1972.
2. Koulourides, T., et al, Ann. N.Y. Acad. Sci., **131**, 771-775, 1965.
3. Von Der Fehr, F.R., et al, Caries Res., **4**, 131-148, 1970.
4. Levine, R.S., Brit. Dent. J., **138**, 249-253, 1975.
5. Slater, P.J., et al, Abstract No. 72, ORCA Conference, July 1982, Annapolis.
6. Hayes, H., et al, J. Dent. Res., **61**(4), 541, 1982.
7. Harvey, K., et al, J. Dent. Res., **61**, 243, 1982.
8. Hodge, H.C., et al, Brit. Dent. J., **148**, 201-204, 1980.



*Colgate Toothpaste contains sodium monofluorophosphate and sodium fluoride which are, in our opinion, effective decay preventive agents and are of significant value when used in a conscientiously applied program of oral hygiene and regular professional care. Canadian Dental Association

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In addition to Dr. Shulman and Mr. Sarlos, contributors to *The*

MoneyLetter include:

David Louis, formerly Partner-National Tax with Ernst & Whinney, one of the world's largest accounting firms. He has given *MoneyLetter* subscribers dozens of tax-saving strategies and techniques.

Roy Hardaker, founder and first president of the Association of Fellows of the Canadian Securities Institute, has proved himself an unerring guide to today's best return on money invested, along with income-producing opportunities.

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<i>Director of Communications/ Directrice des Communications</i>	Mrs. Doris Goodwin	Public Education, Media Relations, Product Acceptance, Membership, Pamphlets and Films / Éducation publique, relations avec les média, agrément des produits, recrutement, dépliants, brochures et films.
<i>Business Manager/ Gérante d'affaires</i>	Jean Scrimger	Administration, finances, information systems Administration, finances, systèmes d'information
<i>Director of Education/ Directrice de l'éducation</i>	Linda Teteruck	Continuing Education, Dental Aptitude Test, Conferences, Student Affairs / Éducation permanente, Test d'aptitudes aux études dentaires, conférences, affaires étudiantes
<i>Librarian/Bibliothécaire</i>	Trudi Ditrollo	Library, Resource Centre, MEDLINE Bibliothèque, Centre de documentation, MEDLINE
<i>Fluoridation Officer/ Préposé à la fluoruration</i>	Lloyd Bowen	(416) 922-3900

Commenting upon June article: 'Dental care for cancer patients'

I read with interest the article in our June 1983 issue of JCDA by Drs. McGaw and Main regarding the dental care for cancer patients. It is a well thought out article and certainly is an area with which all dentists associated with a hospital should be well acquainted. I would however, like to make several comments regarding the pathophysiology and treatment of osteoradionecrosis.

It has been stated by the authors that the best management is conservative and that intractable disease may "force" surgical resection. There was reference to the use of hyperbaric oxygen therapy, but this reference was in fact ten years old. More recent evidence is available.¹

The pathophysiology of the disease is not one of infection, but one of hypoxia, hypocellularity and hypovascularity. A tooth extraction socket or a denture sore has been found not to be a portal of entry of organisms that cause osteomyelitis in a radiated mandible, but are lesions that because of decreased healing capabilities of the irradiated tissues, will not adequately heal. Bacterial colonizations occur secondarily and have been found to be only superficially present.²

Conservative therapy with the use of antibiotics, analgesics and oral irrigations and rinses and elimination of traumatic effects of prostheses etc. has been shown by one author to result in only delay of an inevitable surgical resection some months later. If in fact the degree of mandible resected is greater after conservative therapy perhaps this nonsurgical approach is not so conservative.³

Reference to the work by Dr. Robert Marx suggests an interesting protocol for the management of these patients which combines hyperbaric oxygen and surgery to allow for resolution of osteoradionecrosis rather than merely arresting its progress.

I think a point to be made is that hyperbaric oxygen therapy alone likely will not help resolve the osteoradionecrosis. But, in combination with astute surgical judgement and timing of surgical intervention, the neocellularity and neovascularity generated by hyperbaric oxygen has resulted in the best clinical results to date.

As regards to prosthetic care, it is no longer considered adequate, I believe, to simply eliminate the deviation effects of hemimandibulectomy. Ideal reconstruction of all resections should result in significantly improved functional rehabilitation of these patients. I think that the profession of dentistry, and particularly, the

specialties of oral and maxillofacial surgery and oral pathology should develop a similar Canadian program with the use of hyperbaric oxygen and surgical therapy to manage patients with osteoradionecrosis.

1. Marx, R.E., Ames, J.R. The Use of hyperbaric oxygen therapy in bony reconstruction of the irradiated and tissue deficient patient. *J. Oral Maxillofacial Surg.* 40: 412, 1982.
2. Marx, R.E. Osteoradionecrosis: A new concept of its pathophysiology. *J. Oral Maxillofacial Surg.* 41: 283, 1983.
3. Marx, R.E. A New Concept in the Treatment of Osteoradionecrosis. *J. Oral Maxillofacial Surg.* 41: 351, 1983.

William G. Abbott, DDS
London, Ontario

Disappointed by missing topics

Considering the large amount of time that we in general practice spend in treating children and adolescents, I was very disappointed to see the scientific programme for the CDA Convention.

There are no topics devoted to either paedodontics or orthodontics.

T.W. Rice, DDS, MSc

Congratulations on May cover

I congratulate you on the interesting cover depicting an old-fashioned operatory.

Everything looked authentic to me except the three-pronged electrical outlet.

Dr. J.H. Peters
Goderich, Ontario

CDA Retirement Savings Plan

Unit values of the Canadian Dental Association's Retirement Savings Plan stood as follows on July 31, 1983.

<i>Common Stock Fund</i>	\$73.66969
<i>Fixed Income Fund</i>	\$36.05386
<i>Guaranteed Fund</i>	\$26.50090
<i>Balanced Fund</i>	\$15.01886

Total assets (market value) of the plan were \$37,160,478.

The previous month's figures, as of June 30, 1983, stood as follows:

<i>Common Stock Fund</i>	\$72.70502
<i>Fixed Income Fund</i>	\$36.35542
<i>Guaranteed Fund</i>	\$26.31719

Balanced Fund \$15.00716

Total assets (market value) of the plan were \$37,060,973.

For further information write to: Canadian Dental Service Plans Inc., Ste. 600, 2 Lansing Square, Willowdale, Ontario M2J 4Z3 or call the central information services of CDSPI at 1-800-268-5418 (toll free number for Western Canada, Atlantic Canada and Ontario for Code 807 only), 1-800-268-3411 (toll free number for Quebec and Ontario except Code 807), and 497-7117 (Metro Toronto area).

5 Reasons Why TRI DONT Is An Excellent Career Choice

Dr. Marian Seefus



I joined Tri Dont's Sudbury centre in June of 1982. My short term goal was to gain experience and expertise in the practice of dentistry. My long-term goal was to gain financial independence through owning my own practice in the Toronto area. On June 1st, 1983, I became an owner/operator at a Tri Dont centre in suburban Toronto. Tri Dont has proven to be the vehicle that enabled me to achieve my goals in such a short period of time.

416-273-3730

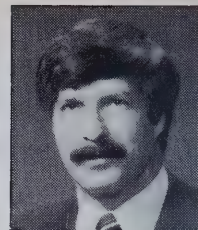
Dr. Eric Walter



I thought the people in North Bay would be too conservative to accept the Tri Dont concept. However, the overwhelming success I've experienced in my first month of operation, proves that the trust I had in Tri Dont's management was extremely well-founded. I thank them for the opportunity.

705-472-2900

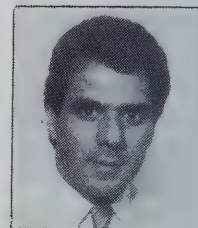
Dr. Brock Rondeau



Any suspicions I may have harbored against Tri Dont were eliminated after consulting with various Tri Dont members and witnessing first hand the dedication to total patient care. Personally, Tri Dont represents an opportunity for me to practice the skills I have acquired over the past six years of general practice and I sincerely believe that to be associated in a challenging new environment is the pinnacle of group practice. Tri Dont's progressive attitude provides an excellent investment opportunity and has a far greater growth potential than that of a solo practitioner. I look forward to joining White Oaks Mall in the fall.

519-672-7920

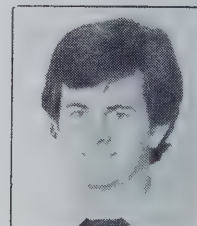
Dr. Richard Agro



During my nine years of private practice, I had developed a flourishing dental practice by implementing practice management techniques to accompany new learned technical skills. The practice management part of my practice became exciting for me as it developed and as positive results occurred. Although quite secure where I was, I met with the Tri Dont Group and was so impressed with their emphasis on high quality dentistry, continuing education and their excellent practice management techniques, that in May of this year, I made the decision to join. I now participate in three Tri Dont Dental Centres. In addition to securing my professional and financial future, I will be applying my practice management skills to the development of Tri Dont Dental Centres across Canada.

416-526-9190

Dr. David Harper



When I graduated from the University of Western Ontario in 1982, I felt that "Retail Dentistry" would never become established and that it couldn't possibly be a responsible career choice. I associated in a private practice and was soon looking for an alternative. I was approached by a fellow graduate who had joined Tri Dont as an owner/operator, and introduced me to the Tri Dont concept. Impressed by Tri Dont's sense of fairness and commitment to their young graduate program, I joined. Shortly thereafter, I was accepted as an owner/operator at the Bramalea City Centre. I now have a growing patient load, equity, and a solid future. Thanks Tri Dont.

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Sault Ste. Marie	Toronto	Barrie	Kanata	Scarborough		

1983/1984 EXPANSIONS:

North Bay	Kingston	Halifax	Victoria	Edmonton	Montreal	Windsor
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Sault Ste. Marie	Midland	Quebec	Belleville	Hamilton	Toronto	Simcoe

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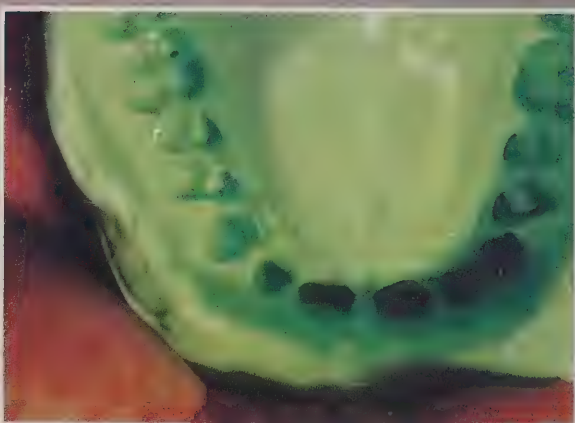
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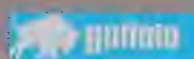


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CDA Library/Resource Centre is providing broader services and attracting greater number of requests

The CDA's Sydney Wood Bradley Memorial Library/Resource Centre, under the direction of Trudi DiTrollo, CDA's new librarian, has been receiving favourable reviews from members and non-members alike.

Ms. DiTrollo, who was born in Canada, but lived a number of years in St. Petersburg, Florida, joined the Association in October 1982. She holds a BA and MLS from Florida State University.

The Library/Resource Centre offers the dental practitioner and the public four basic services. These are: MEDLINE literature searches, photocopy service for articles appearing in periodicals, obtaining journal articles from other medical/dental libraries and the mailing of library materials, including package libraries, to those requesting information.

The MEDLINE system, a computerized information retrieval system, provides users with access to the National Library of Medicine in Bethesda, Maryland. Through this system, library users can obtain lists of articles from over 3,000 medical and dental journals from all over the world, relative to a particular topic.

"This system is extremely popular and is free to all CDA members," said Ms. DiTrollo, "Non-members will be charged a fee of \$25 for MEDLINE literature searches in the near future."

The MEDLINE system, which was introduced into the Resource Centre in February 1982, has shown a marked increase in use since that time.

"Requests for MEDLINE searches have gone from approximately five a month in the beginning to an average of 30 a month," said Ms. DiTrollo.

Some requests come from as far away as New Zealand and users, from comments received, appear to be very happy with the service. Comments such as: "I am green with jealousy over your computer search for a



Photo by Heather Lang-Runtz

CDA Librarian Ms. Trudi DiTrollo is seen calling for MEDLINE information at the computer terminal in the CDA Library/Resource Centre in Ottawa.

topic...sincere thanks to the Canadian Dental Association", (New Zealand Dental Association); "This is one service of the Canadian Dental Association which has greatly benefitted me", (White Rock, B.C.); "Thank you for this wonderful service that you provide to the profession," (Agin-court, Ontario); are common in the daily mail received by the library.

Another popular service of the Resource Centre is the package libraries: lists of articles on selected topics which have been determined to be of interest to the dental community. These lists are published monthly in the Journal and are generated with the help of the MEDLINE system. While the package library service and any other administrative services (such as one copy of an article in a particular dental journal), will continue to be free of charge to CDA members, Ms. DiTrollo told the Journal it is expected in the near future that non-Association members will be charged a fee of \$5 for these services.

"The most asked for package libraries so far have been "Dentists and

Stress" and "Computers in Dental Practice", said Ms. DiTrollo.

Monthly topic searches

Another service also offered through the MEDLINE system, is monthly updates of searches on a particular topic of interest. This is available only to CDA members.

"For example, if a member is particularly interested in, for example, TMJ, and has already received material from a basic MEDLINE search on the subject, he can request an update which will provide him with the latest articles on that subject on a monthly basis," said Ms. DiTrollo.

A brand new service of the Resource Centre, which began September 1, is the provision of copies of contents pages of the most current dental Journals.

"This service will help practitioners keep abreast of the latest articles in the dental journals, and members who wish to read a particular article from a particular journal, can request a photocopy of that article from the Resource Centre," said Ms. DiTrollo.

Continued on next page

"This service will be provided to CDA members only."

Ms. DiTrollo sees one of the library's priorities as updating the collection of journals, association and government publications, and selected books. The library currently has approximately 60 periodical titles and new subscriptions are being ordered frequently. In the last year, the library has acquired more than 300 new volumes. A "New Acquisitions" list which includes not only books and journals, but also government documents and association publications, is published each month in this Journal.

Archival collection

One of the future priorities of the CDA Resource Centre will be putting its archival collection in order.

"We hope the library will eventually become a repository for historical and archival material on dentistry in Canada. We hope one day to make available a collection of archival material that is unique and presently unavailable from any other source," said Ms. DiTrollo.

The Resource Centre is also currently investigating the possibility of providing an audio-visual service to the profession.

The most frequent user of the Re-

source Centre appears, from a recent survey, to be the dentist in private practice. From October 1982 to May 1983, 430 requests for information have come from private practitioners. Other frequent users include CDA staff, particularly the Communications Department, dentists in clinics and hospitals, dental students, specialists and dental manufacturers.

The CDA Library/Resource Centre has been in operation for over 30 years and, Ms. DiTrollo says, it is hoped that the Library can continue to provide the profession with up to date resource material for many years into the future.

Real World of claims — CDSPI

Case Study No. 3

Fire

Nature of Claim —

Fire resulting in damage to the dentist's office and destruction of equipment as well as supplies

Cause —

Suspected faulty wiring

Time to effect repairs —

Estimated time to repair the damage and replace equipment — 6 to 8 weeks

Amount of Office Contents —

\$65,000

Amount of Business Interruption Insurance —

NIL

— — — — —

During the early hours of a February morning, fire broke out in the building where the dentist had his office. The second floor of the shopping centre was damaged extensively, the dentist's office received a great deal of damage, water and smoke plus a gutted ceiling.

Major equipment was lost including two X-Rays, compressor, three chairs, central power suction and much more. A black film of soot penetrated all

cabinets making it impossible to clean and therefore they had to be replaced.

Adequate coverage for Office Contents was in force at the time of the fire so there was no problem with having repairs done, replacing lost equipment and supplies. The patient record files were saved.

Unfortunately, there was no Business Interruption insurance and the ongoing expenses, while the office was under repair, had to be paid by the dentist. The loss of personal income also had to be assumed by the dentist.

We have detailed this actual claim in order to provide information about the Real World of claims and also to draw attention to the fact that in many cases, there is **not** sufficient coverage to cover the loss. In this case, the lack of Business Interruption insurance resulted in a considerable loss to the dentist.

If you need assistance to make sure your insurance program is adequate, write to CDSPI, 2 Lansing Square, Suite 600, Willowdale, Ontario, M2J 4Z3, or call our Central Information Service at:

1-800-268-5418

Western Canada, Atlantic Canada, and Ontario Area Code 807

1-800-268-3411

Quebec and Ontario, *EXCEPT* for Area Code 807

(416) 497-7117

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Obituaries/ Nécrologies

McCARTNEY, Madison (Mac):

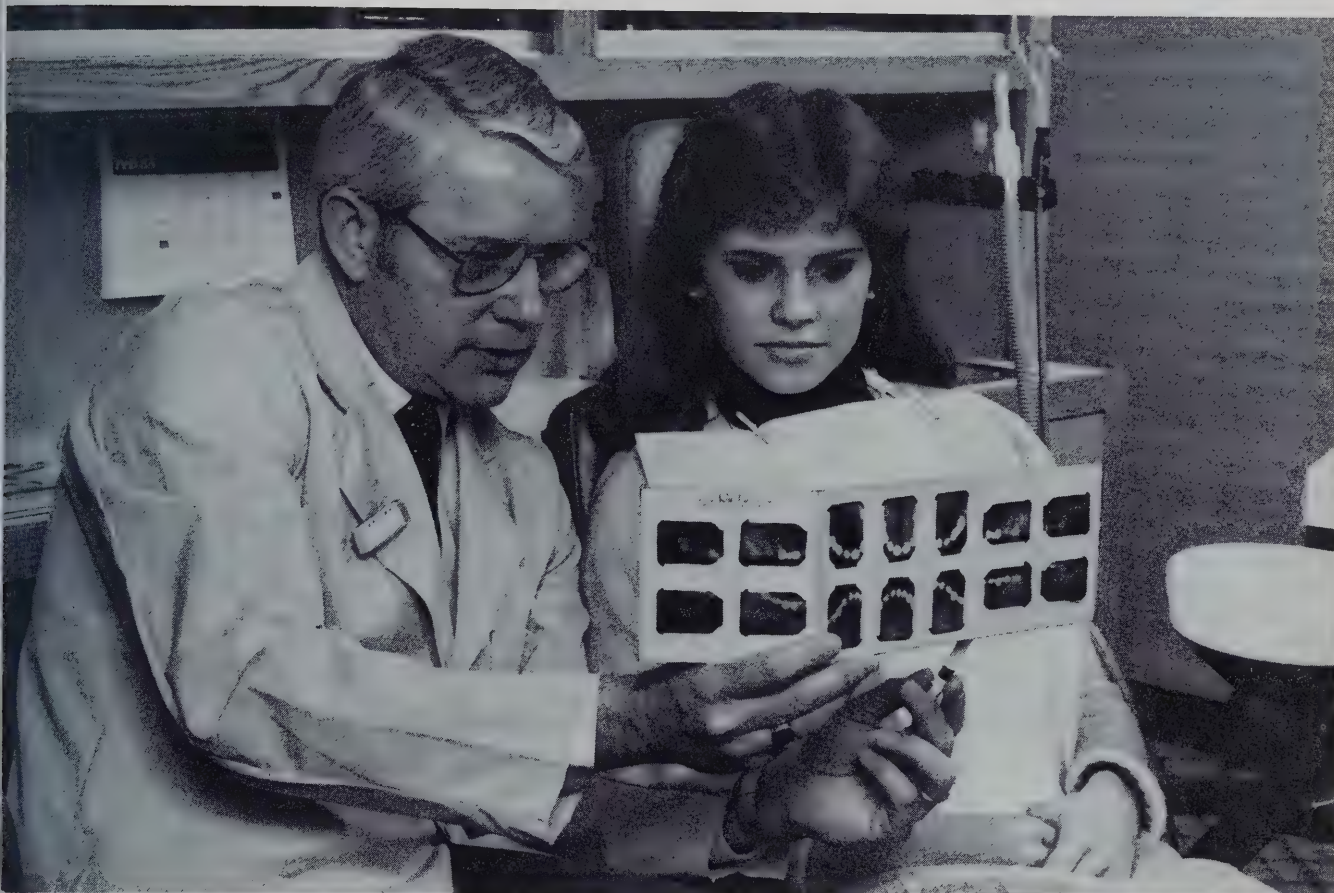
Dr. McCartney, a resident of Peterborough, Ontario, at the time of his death, was born in Toxford, Saskatchewan. He graduated from the University of Toronto in 1935 and practiced in Peterborough for 31 years.

SMEATON, W. B.: Dr. Smeaton

was a graduate in 1940 from the University of Toronto. He practiced dentistry in Niagara Falls, Ontario, where he was residing at the time of his death.

THAYER, R. O.: Dr. Thayer,

who graduated in 1951 from the University of Toronto, was a resident of Chatham, Ontario, at the time of his death.



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Continuing Education

Continuing Dental Education										
Sponsoring Institution/Address	Location of Course	Title of Course	Subject Area	Date	Style	Instructor	Registration	Fee	Audience	Contact Person/Telephone
Continuing Dental Ed., University of British Columbia, 105-2194 Health Sciences Mall, Vancouver, B.C. V6T 1W5	Vancouver, B.C.	Surgery in the Anterior Quadrant	Endodontics Periodontics	Sept. 17, 1983	Lecture	Dr. J. Fraser Dr. M. Wilby	Open	DDS \$80 Aux \$40	GPs, Assistants, Hygienists	Dr. M. Williamson, 604-228-2627
"	"	Etched Cast Restorations: State of the Art	Dental Materials and Devices	Oct 8, 1983	Lecture	Dr. Van P. Thompson	Open	DDS \$80 Aux \$80 Tech \$80	GPs, Tech, Assistants, Hygienists	"
"	"	Is Dentistry Killing You	Practice Management	Oct 15, 1983	Lecture	Dr. J. Sehmer and Dr. R. Mathias	Open	DDS \$80 Aux \$40	GPs, Assistants, Hygienists	"
"	"	Preparing the Dental Offices for Emergencies	Emergency Dentistry	Oct 22, 1983	Lecture	Dr. S. Malamed	Open	DDS \$80 Aux \$40	GPs, Assistants, Hygienists	"
"	"	Endodontics in General Practice	Endodontics	Oct 29, 1983	Lecture	Dr. L. Tronstad	Open	DDS \$80 Aux \$40	GPs, Assistants Hygienists	"
"	"	Design and Construction of Removable Partial Dentures	Prosthodontics	Nov 5, 1983	Lecture	Dr. R. Frank	Limited	DDS \$90 Aux \$45	GPs, Assistants, Hygienists	"
"	"	Office Management The Mar Technique	Practice Management	Nov 12, 1983	Lecture	Dr. F. Quarnstrom	Open	DDS \$145 Aux \$70	GPs, Assistants, Hygienists	"
"	"	Medical Aspects of Dentistry of Interest to GP		Nov. 19, 1983	Lecture	Dr. L. Cohen	Open	DDS \$80 Aux \$40	GPs, Assistants, Hygienists	"
"	"	Current Concepts in Periodontal and Restorative Therapy	Periodontics	Nov 26, 1983	Lecture	Dr. D. Bridger Dr. K. Lee	Open	DDS \$80 Aux \$40	GPs, Assistants, Hygienists	"
"	"	Clinical Management of the Fearful and Anxious Patient	Anxiety and Pain Control	Dec. 10, 1983	Lecture	Mr. T. Getz Dr. P. Weinstein	Open	DDS \$80 Aux \$40	GPS, Assistants, Hygienists	"
"	"	Periodontal Problem Solving in General Practice	Periodontics	Feb 4, 1984	Lecture	Dr. H. Corn	Open		GPs, Assistants, Hygienists	"
Continuing Education, University of Alberta, 4046 Dent/Pharm Bldg, Edmonton, Alta.	Edmonton, Alta.	Molar Endodontics	Endodontics	Sept. 24, 1983	Lecture	Dr. K. Zakariassen	Max. 40		DDS only	Dr. A. A. Beneor Louise Grottoli 403-432-5023

Continuing Dental Education

Sponsoring Institution/Address	Location of Course	Title of Course	Subject Area	Date	Style	Instructor	Registration	Fee	Audience	Contact Person/Telephone
Continuing Education, University of Alta., 4046 Dent/Pharm Bldg. Edmonton Alta.	Edmonton, Alta.	Controversies in Endodontics	Endodontics	Mar. 24, 1984	Lecture	Drs. K. Zakariasen/ C. Hawrish	Open		GPs, Assistants	Dr. A. A. Bene or Louise Grotoli 403-432-5023
"	Medicine Hat, Alta.	Computers: Utilization in Dental Practice	Computers	Mar. 31, 1984	Lecture	Drs. D. Scott G. W. Raborn	Open		GPs, Assistants, Hygienists	"
"	Banff, Alta.	Update: Oral Diagnosis/Oral Medicine/Endo.	Oral Medicine/Oral Diagnosis	Mar. 31-Apr. 4, 1984	Lecture	Drs. K. Zakariasen/ G. Raborn	Open		GPs, Assistants	
"	Calgary, Alta.	Clinical Anatomy Growth/Malformation of Face and Jaws	Basic Sciences	Apr. 7, 1984	Lecture Demon.	Dr. G. H. Sperber	Open		GPs, Assistants	"
"	Edmonton, Alta.	Molar Endodontics	Endodontics	Apr. 14, 1984	Lecture Partic.	Dr. K. Zakariasen	Max. 40		GPs	"
"	Calgary, Alta.	Pain Control: Update on Anesthetics	Pain Management	Apr. 27, 1984	Lecture	Dr. Paul Moore	Open		GPs	"
"	Edmonton, Alta.	Pain Control: Update on Anesthetics	Pain Management	Apr. 28, 1984	Lecture	Dr. Paul Moore	Open		GPs	"
"	"	Clinical Gross Anatomy	Basic Sciences	May 11-12, 1984	Lecture Demon.	Dr. G. H. Sperber			GPs	
"	"	Conscious Sedation	Anxiety and Pain Control	May 14-18, 1984	Lecture Demon. Partic.	Dr. B. K. Arora	Max. 16		GPs	"
"	"	Root Planing Current Concepts	Periodontics	May 17-19, 1984	Lecture Demon. Partic.	Dr. A. Frydman	Max. 35		GPs, Hygienists	"
Faculty of Dentistry, University of Toronto, 124 Edward St., Toronto, Ont. M5G 1G6	Toronto, Ont.	Current Concepts in Surgical Endodontics	Endodontics	Oct. 6, 1983	Lecture	Drs. B. Korzen W. H. Pulver	Max. 50	\$125	GPs	Mai Pohlak: 416-978-2358
"	"	Practice Management Update	Practice Management	Oct. 13-14, 1983	Lecture Demon.	Dr. N. Levine	Max. 50	\$225 DDS \$150 Other Aux	GPs, Spec. Assistants, Other	"
"	Toronto, Ont.	Building an Emergency Kit and How to Use it.	Pain Management	Oct. 21, 1983	Lecture Demon.	Dr. S. C. Small	Max. 30	\$50	GPs	"
"	"	Recent Developments in dental materials	Dental Materials and Devices	Oct. 26-28, 1983	Lecture	Drs. D. Smith D. McComb	Max. 20	\$250	GPs	"
"	"	Orthodontic Update	Orthodontics	Nov. 4-6, 1983	Lecture Demon.	Dr. D. Woodside	Max. 300	\$525	GPs, Specialists	"
"	"	Endodontic Filling Materials and Techniques	Endodontics	Nov. 10, 1983	Lecture	Drs. B. Korzen W. H. Pulver	Max. 100	\$125	GPs	"
"	"	Local Anaesthesia	Pain Management	Nov. 11, 1983	Lecture	Drs. S. Small K. Dann	Max. 30	\$100	GPs	"

"	"	Photography in Dentistry	Photography	Nov. 18, 1983	Lecture Demon. Particip.	Rita Bauer	Max. 12	\$75 DDS \$50 Aux	Whole dental team	"
"	"	Oral Surgery Conference	Oral and Maxillofacial Surgery	Dec. 2, 1983	Lecture	Col. K. Kemps	Open	\$150	Specialists	Elaine Ryley 416-978-3615/2799
"	"	Coping With Endodontic Emergencies	Endodontics	Dec. 8, 1983	Lecture	Drs. B. Korzen/W. H. Pulver	Max. 50	\$125	GPs	Mai Pohlak 416-978-2358
"	"	Recertification in CPR and Emergency Measures	CPR	Dec. 8-9, 1983	Participation	Drs. S. Small and K. Dann.	8 DDS 8 Aux Must be from same office	\$150	Whole Dental Team	"
"	"	Endodontics for the General Practitioner	Endodontics	Jan. 12, 1984	Lecture	Drs. B. Korzen W. Pulver	Max. 50	\$125	GPs	"
"	"	Dental Health Care Evaluation Seminar	Public Health	Feb. 13-17, 1984	Seminar				Dental Health Professionals	Dr. James Leake 416-978-6226
The University of Western Ontario, London, Ontario N6A 5C1	London, Ont.	Occlusion I: Fundamentals	Occlusion	Oct. 20-22, 1983	Lecture Demon. Particip.	Drs. W. Teteruck and D. Gratton	Max. 16	\$400 \$460 lab	GPs, Lab Technicians	M. J. Wiersma 519-679-2862
"	"	Preprosthetic Surgery	Oral and Maxillofacial Surgery/ Prosthodontics	Nov. 9, 1983	Lecture Demon. Particip.	Dr. I. Schofield/ Dr. P. Sills	Max. 25	\$100	GPs	"
"	"	Crown and Bridge in the '80's	Fixed Prosthodontics	Dec. 1-3, 1983	Lecture Demon. Particip.	Drs. D. Gratton/ W. Teteruck	Max. 10	\$425	GPs	"
"	"	The Cast-Etch Bridge	Fixed Prosthodontics	Jan. 20, 1984	Lecture Demon.	Dr. D. R. Gratton and Associates	Max. 30	\$150	GPs, Lab. Lab. Tech.	"
"	"	Periodontics I	Periodontics	Jan. 27, 1984	Lecture Particip.	Drs. J. Stakiw J. Awde	Max. 25	\$150	GPs	"
"	"	Occlusion II: Gnathologic Waxing	Occlusion	Feb 3-4, 1984	Lecture Demo. Particip.	Dr. W. Teteruck and Associates	Max. 16	\$230	GPs, Lab Techs	"
"	"	Electrosurgery in General Practice	Periodontics Prosthodontics	Mar. 30, 1984	Lecture Demo. Particip.	Dr. D. Gratton	Max. 15	\$175	GPs	"
"	"	Periodontics II: Surgical Treatment	Periodontics	Apr. 5-6, 1984	Lecture Particip.	Drs. J. Stakiw/ J. Awde	Max. 8	\$400	GPs	"
"	"	Removable Partial Dentures	Prosthodontics	Apr. 5-7, 1984	Lecture Demo. Particip.	Drs. P. Sills D. Charles	Max. 24	\$275	GPs	"

Continuing Dental Education										
Sponsoring Institution/Address	Location of Course	Title of Course	Subject Area	Date	Style	Instructor	Registration	Fee	Audience	Contact Person/Telephone
University of Western Ontario, London, Ont. N6A 5C1	London, Ont.	Panoramic Dental Radiography	Oral Radiology	Apr. 11, 1984	Lecture Demo. Partic.	Drs. R. Stephens/J. Reid	Max. 20	\$115	GPs	"
"	"	Forensic Dentistry An Overview	Forensic Dentistry	Apr. 13, 1984	Lecture	Dr. S. Kogon	Open	\$60	GPs	"
"	"	Aesthetic Dentistry	Operative Dentistry	Apr. 12-14, 1984	Lecture Demo. Partic.	Drs. R. Jordan D. Gratton	Max. 25	\$400	GPs	"
"	"	CPR: A Review of Emergency Drugs	Oral Medicine	Apr. 14, 1984	Lecture Demo. Partic.	Drs. I. Schofield or A. Parnell	Max. 24	\$100	GPs, Assistants	"
"	"	Complete Dentures Today	Removable Prosthodontics	April 27-28, 1984	Lecture	Dr. P. Sills and Associates	Open	\$200	GPs	"
"	"	Nitrous Oxide Oxygen, Conscious Sedation	Oral and Maxillofacial Surgery	May 23-25, 1984	Lecture Demo. Partic.	Dr. I. Schofield and Associates	Max. 25	\$275 \$200 Ac-com-oda-tion	GPs	"
"	"	Practice Administration in the '80s	Practice Management	June 8-9, 1984	Lecture	Dr. R. A. Brandon and Associates	Open	\$200	GPs, Assistants Hygienists	"
Ontario Dental Assoc., 234 St. George St., Toronto, Ont. M5R 2P1	Toronto, Ont.	PM 104: Computerization	Computers	Sept. 23, 1983	Lecture Demo. Partic.	Mr. M. Barrington	Limited	ODA & staff \$150 Non-ODA \$225	GPs, Specialists	Dr. J. Goodman 416-922-3900
"	Mississauga, Ont.	PM 103: Tax Planning	Practice Management	Sept. 23, 1983	Lecture	Mr. Jack Bernstein	Limited	ODA \$150 Non-ODA \$225	GPs, Specialists	"
"	Kirkland Lake, Ont.	Staged Dental Treatment for the Child Patient	Pedodontics	Sept. 30, 1983	Lecture	Dr. D. Kenny	Limited	ODA \$150 Non-ODA \$225 Staff \$50	GPs, Specialists Assistants Hygienists	"
"	Toronto, Ont.	Pain Control and Dental Emergencies	Anxiety and Pain Control, Pain Management	Sept. 30, 1983	Lecture	Dr. Mel Hawkins	Limited	ODA \$150 Non-ODA \$225 Staff \$50	GPs, Specialists	"
"	London, Ont.	Computerization	Computers	Sept. 30, 1983	Lecture Demo. Partic.	Mr. M. Barrington	Limited	ODA \$150 Non-ODA \$225 Staff \$150	GPs, Specialists	"

"	Kirkland Lake, Ont.	Occlusal Guidance	Pedodontics	Oct. 1, 1983	Lecture Partic.	Dr. D. Kenny	Limited	ODA \$150 non-ODA \$225	GPs, Specialists	"
"	Toronto, Ont.	Practice Building in the 80's	Practice Management	Oct. 7, 1983	Lecture	Dr. J. Britton	Limited	ODA \$150 non-ODA \$225 Staff \$50	GPs, Specialists, Assistants, Hygienists	"
"	Toronto, Ont.	Staged Dental Treatment for the Child Patient	Pedodontics	Oct. 14, 1983	Lecture	Dr. D. Kenny	Limited	ODA \$150 non-ODA \$225 Staff \$50	GPs, Specialists, Assistants, Hygienists	"
"	Oshawa, Ont.	Effective Persuasion Motivating Your Existing Patients	Practice Management	Oct. 14, 1983	Lecture	Mr. D. Prentice	Limited	ODA \$150 non-ODA \$225 Staff \$50	GPs, Specialists, Assistants, Hygienists	"
"	Orillia, Ont.	Pain Control and Dental Emergencies	Anxiety and Pain Control Pain Management	Oct. 21, 1983	Lecture	Dr. Mel Hawkins	Limited	ODA \$150 non-ODA \$225 Staff \$50	GPs, Specialists	"
"	Peterborough, Ont.	Tax Planning	Practice Management	Oct. 21, 1983	Lecture	Mr. Jack Bernstein	Limited	ODA \$150 non-ODA \$225	GPs, Specialists	"
"	Sarnia, Ont.	Computerization	Computers	Oct. 21, 1983	Lecture Demo. Partic.	Mr. M. Barrington	Limited	ODA \$150 non-ODA \$225 Staff \$150	GPs, Specialists	"
"	Chatham, Ont.	Effective Persuasion: Motivating Your Existing Patients	Practice Management	Oct. 21, 1983	Lecture	Mr. David Prentice	Limited	ODA \$150 non-ODA \$225 Staff \$50	GPs, Specialists, Assistants, Hygienists	"

Continuing Dental Education

Sponsoring Institution/Address	Location of Course	Title of Course	Subject Area	Date	Style	Instructor	Registration	Fee	Audience	Contact Person/Telephone
"	Cornwall, Ont.	Practice Building in the 80's	Practice Management	Oct. 21, 1983	Lecture	Dr. J. Britton	Limited	ODA \$150 non-ODA \$225 Staff \$50	GPs, Specialists, Assistants, Hygienists	"
"	Arnprior, Ont.	Computerization	Computers	Oct. 28, 1983	Lecture Demo. Partic.	Mr. M. Barrington	Limited	ODA & Staff \$150 non-ODA \$225	GPs, Specialists	"
"	Sudbury, Ont.	Computerization	Computers	Nov. 4, 1983	Lecture Demo. Partic.	Mr. M. Barrington	Limited	ODA & Staff \$150 non-ODA \$225	GPs, Specialists	"
"	Owen Sound,	Effective Persuasion: Motivating Your Existing Patients	Practice Management	Nov. 9, 1983	Lecture	Mr. D. Prentice	Limited	ODA \$150 Non-ODA \$225 Staff \$50	GPs, Specialists, Assistants, Hygienists	"
"	Toronto, Ont.	Clinical Endodontics	Endodontics	Nov. 11, 1983	Lecture	Dr. B. Dolansky	Limited	ODA \$150 non-ODA \$225 Staff \$50	GPs, Specialists, Assistants, Hygienists	"
"	Toronto, Ont.	Effective Persuasion: Motivating Your Existing Patients	Practice Management	Nov. 11, 1983	Lecture	Mr. D. Prentice	Limited	ODA \$150 Non-ODA \$225 Staff \$50	GPs, Specialists, Assistants, Hygienists	"
"	Toronto, Ont.	Endo 200 Participation Course	Endodontics	Nov. 12, 1983	Lecture Partic.	Dr. B. Dolansky	Limited	ODA \$325 non-ODA \$450	GPs, Specialists	"
"	Orillia, Ont.	Computerization	Computers	Nov. 18, 1983	Lecture Demo. Partic.	Mr. M. Barrington	Limited	ODA & Staff \$150 non-ODA \$225	GPs, Specialists	"

"	Hamilton, Ont.	Staged Dental Treatment for the Child Patient	Pedodontics	Nov. 18, 1983	Lecture	Dr. D. Kenny	Limited	ODA \$150 non-ODA \$225 Staff \$50	GPs, Specialists, Assistants, Hygienists	"
"	Sault Ste. Marie, Ont.	Effective Persuasion: Motivating Your Existing Patients	Practice Management	Nov. 18, 1983	Lecture	Mr. D. Prentice	Limited	ODA \$150 non-ODA \$225 Staff \$50	GPs, Specialists, Assistants, Hygienists	"
"	Toronto, Ont.	Computerization	Computers	Dec. 2, 1983	Lecture Demo. Partic.	Mr. M. Barrington	Limited	ODA & Staff \$150 non-ODA \$225	GPs, Specialists	"
"	Toronto, Ont.	Tax Planning	Practice Management	Dec. 2, 1983	Lecture	Mr. Jack Bernstein	Limited	ODA \$150 non-ODA \$225	GPs, Specialists	"
"	Mississauga, Ont.	Pain Control and Dental Emergencies	Anxiety and Pain Control Pain Management	Dec. 9, 1983	Lecture	Dr. Mel Hawkins	Limited	ODA \$150 non-ODA \$225 Staff \$50	GPs, Specialists	"
"	Barrie, Ont.	Practice Building in the 80's	Practice Management	Dec. 9, 1983	Lecture	Dr. J. Britton	Limited	ODA \$150 non-ODA \$225 Staff \$50	GPs, Specialists, Assistants,	"
"	Toronto, Ont.	Occlusal Guidance	Pedodontics	Dec. 16, 1983	Lecture Partic.	Dr. D. Kenny	Limited	ODA \$150 non-ODA \$225	GPs, Specialists	"
McGill University, 740 Docteur Penfield, Montreal, Que. H3A 1A4	Montreal, Que.	Current Problems Relating to the Masticatory System	Occlusion, Oral and Maxillofacial Surgery, Periodontics	Sept. 23, 1983	Lecture	Dr. K. Bentley Dr. R. Jones Dr. J. Kenrick		\$75	GPs	Mrs. Olga Chodan 514-392-4921 Dr. C. Clark 514-392-4536
Continuing Education, Faculty of Dentistry, Dalhousie University, Halifax, N.S. B3H 3J5	Halifax, N.S.	Today's Research Tomorrow's Delivery Health Care	Hard Tissue Research	Sept. 30-Oct. 1, 1983	Symposium	various	Open		GPs	Kaireen Vaison 902-424-2248 or 424-6507

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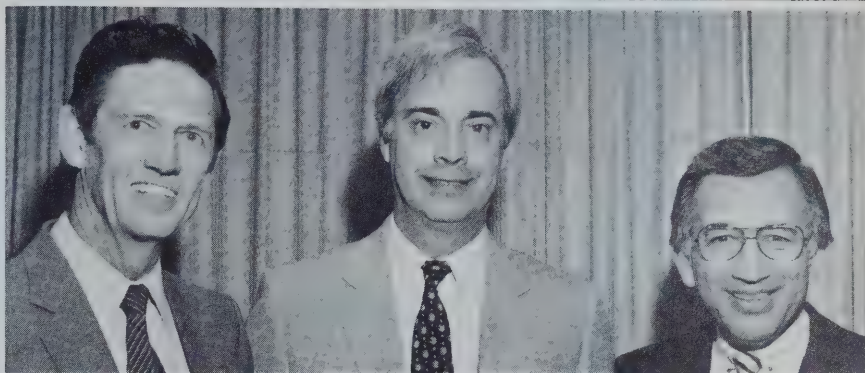
Les Journées Dentaire breaks attendance records

Les Journées Dentaire du Québec, the annual convention of the Ordre des Dentistes du Québec, set an attendance record this year, when it was held in Montreal at the end of May.

A total of 4,725 people attended the 1983 convention, including 1,979 dentists, 735 exhibitors, 495 dental assistants, 132 dental hygienists and 129 dental students.

For the first time in the history of Les Journées Dentaire, the 1983 event had in attendance three of North America's dental leaders.

Dr Burton Press, President of the American Dental Association, Dr. William Thompson, President of the Canadian Dental Association and Dr. Marc Boucher, President of the Ordre des Dentistes du Québec, were all on hand for the occasion. By tradi-



CDA President Dr. W.R. Thompson, ODQ President, Dr. Marc Boucher and ADA President, Dr. Burton Press, are shown in attendance at Les Journées Dentaire du Québec, the annual convention of the Ordre des Dentistes du Québec. The Convention was held in Montréal, Québec, May 28-June 1.

tion, Dr. Boucher welcomes to the profession new graduates from the three Québec dental faculties at a welcome luncheon. This year, he had help from Dr. Press and Dr. Thompson was also invited to participate.

Both visiting Presidents were active in the Convention's extensive program, which included more than 70 clinicians presenting a multidisciplinary program during the three days of the event.

Groups or Individuals Interested

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TABLE CLINIC

at the 1984 CDA/ODQ National Convention

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April 8 to 12 1984

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Dr. Michel Jahjah
Les Journées Dentaire du Québec
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Montréal, Québec H2L 4G3

As soon as possible

Les Groupes ou les Personnes
Intéressés

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If you're a participant in the CDIP life insurance plan, your information kit is in the mail. Please call if you haven't received your kit by September 30. You have until October 31 to qualify for non-smokers' rates on January invoices.

If you don't participate in the CDIP life insurance plan, we'll be pleased to send you full information on the attractive new non-smokers' rates. Phone Canadian Dental Service Plans Inc. for rates and details.

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Hepatitis B has become a world concern

The World Health Organization, following a recent meeting on the prevention of liver cancer, issued a statement linking liver cancer to the incidence of hepatitis B virus.

The statement, quoted from the FDI Newsletter (No. 129, May 1983) reads as follows:

"Liver cancer is one of the 10 most common cancers in the world and one of the most prevalent cancers in developing countries. The evidence for the implication of hepatitis B virus in the etiology of primary liver cancer is based on epidemiological and geographical observations of a strong association between hepatitis B infection and this form of cancer, and recent results of molecular biology studies showing the integration of the viral DNA into the host genetic material.

"Survival and persistence of hepatitis B virus in the population on a global scale is due to the huge reservoir of carriers, estimated conservatively to number over 200 million. Prolonged 'shedding' of the virus by a proportion of carriers and transmission by various routes account for the frequency of the disease.

"It is now appropriate for international action to plan and initiate a number of field intervention trials in

populations where the prevalence of infection with hepatitis B, the carrier state and liver cancer, are known to be high, using the newly developed hepatitis B vaccines."

Hepatitis B will be the subject of one of the main themes at the FDI Congress in Tokyo, Japan, in November of this year.

An open session entitled "Hepatitis and the Dentist" will take place November 18, from 2-5 pm. Following an introduction by E. Mitchell of the U.S., J. Mosley (also of the U.S.) will speak on "Current Knowledge of Hepatitis as a Disease."

M. Mori of Japan will speak on the status of hepatitis diseases in the world community and R. Woods of Australia will follow with "Office Procedure to Prevent the Transmission of Hepatitis in Dental Practice".

Finally, E. Mitchell will conclude the session with a lecture on "A Vaccine for Type B Hepatitis and its Implications for Dentistry."

Several FDI member countries, including the U.S., the U.K., and the Federal Republic of Germany, have also recently issued statements on hepatitis B and the new vaccines, and the implications for dentists practicing in those countries.

Where There's a Will — There's a Way

If dentistry has been good to you, shouldn't you consider an investment to enhance the profession and help improve the dental health of all Canadians?

Naturally your family and friends deserve your first attention and their future must be looked after. But what about the balance of your estate — the residue over and above the needs of your loved ones and friends?

It's easier than you might think. Just insert one little sentence in your will — "I give to the Canadian Fund for Dental Education the sum of dollars".

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REFERENCES

1. Johnson RH, Rozanis J, Schofield IDF et al. The Effect of Spiramycin on Plaque Accumulation and Gingivitis. *Canad Dent Assn J* 1978;10:456-60.
2. Bénézet F, Dubost M. Apparent Paradox of Antimicrobial Activity of Spiramycin. *Antibiotics Annual* 1958-59:211-20.
3. Mills WH, Thompson GW, Beagrie GS. Clinical Evaluation of Spiramycin and Erythromycin in Control of Periodontal Disease. *J Clin Periodontol* 1979;6:308-16.
4. Kernbaum S. La spiramycine: Utilisation en thérapeutique humaine. *Sem Hôp Paris* 1982; 58(5):289-97.

PRESCRIBING INFORMATION: ROVAMYCINE® (spiramycin)

INDICATIONS AND CLINICAL USES

The treatment of infections of the respiratory tract, buccal cavity, skin and soft tissues due to susceptible organisms. *Neisseria gonorrhoeae*: as an alternate choice of treatment for gonorrhea in patients allergic to the penicillins. Before treatment of gonorrhea, the possibility of concomitant infection due to *T. pallidum* should be excluded.

CONTRAINDICATIONS

Rovamycine is contraindicated in patients with known hypersensitivity to the drug. The levels of spiramycin attained in the cerebrospinal fluid are much lower than those in the blood and are too low to be clinically useful. Therefore Rovamycine must not be used in patients with meningitis.

PRECAUTIONS

Administer antibiotics, including Rovamycine cautiously to any patient who has demonstrated some form of allergy, particularly to drugs. The possibility of superinfection caused by overgrowth of nonsusceptible organism should be kept in mind during prolonged or repeated therapy. If superinfection occurs, discontinue the drug and take appropriate measures. Safety of this product for use during pregnancy has not been established.

ADVERSE REACTIONS

Rovamycine has a low toxicity and rarely produces serious adverse effects; these include epigastric pain and abdominal discomfort, nausea, vomiting, diarrhea and skin sensitization.

SYMPTOMS AND TREATMENT OF OVERDOSAGE

SYMPTOMS: No case of accidental overdosage has been reported. In oral doses over 4 g per day, abdominal discomfort, nausea or diarrhea may occur.

TREATMENT: No specific treatment has been proposed. Management should be symptomatic.

DOSAGE AND ADMINISTRATION

Adults: 6,000,000 to 9,000,000 I.U. (4 to 6 capsules of Rovamycine '500') per 24 hours, in 2 divided doses. In severe infections, the daily dosage may be increased to 12,000,000 to 15,000,000 I.U. (8 or 10 capsules of Rovamycine '500' per day). Gonorrhea: 12,000,000 to 13,500,000 I.U. (8 to 9 capsules) in a single dose.

Children: The usual daily dosage is based on 150,000 I.U./kg body weight in 2 or 3 divided doses; the following calculated dosages are given as a guide.

BODY WEIGHT	DOSAGE IN CAPSULES ROVAMYCINE '250' (750,000 I.U. SPIRAMYCIN/CAPSULE)
15 kg	3 capsules/day
20 kg	4 capsules/day
30 kg	6 capsules/day

Spiramycin is stable in gastric juices and absorption is not affected by food.

In severe infections, the daily dosage may be increased by one half. In the treatment of beta-hemolytic streptococcal infections, adequate Rovamycine dosage should be administered for 10 days.

AVAILABILITY

Rovamycine '250': Capsules of 750,000 I.U., bottles of 100.
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Briefly —

The Ordre des dentistes du Québec recently honoured one of their own.

Dr. Conrad Godin of Trois Rivières, Québec was presented with a plaque at the Order's annual meeting, commemorating his 50 years of practicing dentistry.

As well as being a dentist, Dr. Godin is something of an historian. Much of his spare time is spent studying the history and heritage of the Mauricie region of Québec.

The commemorative plaque was presented to Dr. Godin by Dr. Marc Boucher, president of the Ordre des dentistes du Québec.

Ontario school children have fewer cavities than they did 10 years ago.

A 10 year survey by the Ontario Ministry of Health, carried out between 1972 and 1982, using data gathered in visits by hygienists to Ontario's elementary schools, revealed that among elementary school children, the incidence of cavities has been cut almost in half.

Survey results are based on dental examinations of children aged five, seven, nine, 11 and 13, across the province. Among five-year-olds, the average number of teeth that required treatment for cavities dropped from 1.56 in 1972 to .80 10 years later. The average number for nine-year-olds was 2.30 in 1972, but by 1982, it had dropped to .80. In 1972, the number of teeth in 13-year-olds, requiring treatment for caries was 1.91, while in 1982 that number had been reduced to only 0.56.

Dr. Ken Ryan, senior dental consultant with the public health branch of the Ontario Ministry of Health, attributes much of the reduction in cavities to the widespread use of fluoride.

"In Ontario, 64 per cent of the pop-

ulation drink naturally or controlled fluoridated tap water," said Dr. Ryan, "In addition, the popularity of fluoride toothpastes, mouthwashes, supplements and applications available at the dentist's office has contributed to this overall improvement in the dental health of our children."

The Ministry also cites other factors, including public dental health education programs, which make people more aware of the benefits of regular brushing, flossing and good eating habits.



Photo courtesy: Sudbury Northern Life.
Mr. R.D. McAllister

You now address him formally as Bob McAllister, Member of the Order of Canada.

Robert Donald McAllister, the former Lions Club president of Azilda, Ontario, who devotes all his waking hours and energy to help improve the dental and physical health care services for people in underdeveloped Caribbean countries, will receive the honor officially from Governor-General Edward Schreyer.

Meanwhile McAllister continues to transport donated medical and dental equipment to West Indian islands and parts of South America.

Children in some underserved areas in northern Canada will be

receiving dental treatment again in 1983-84.

The Northwestern Health Unit, originating in Kenora, Ontario, reactivated its school dental program by hiring four new staff members June 1.

The program had been idle for most of the 1982-83 school year because of a lack of dentists.

Dr. David Reidiger, a 1983 graduate of the University of Manitoba, and his assistant, Trish Edwards, a hygienist from Winnipeg, will service the Dryden, Sioux Lookout, Vermilion Bay area. Drs. David McDermid and Liz McKenzie, both 1983 graduates from the University of Manitoba, will serve in the Emo and Rainy River district.

The Northwestern Health Units school dental treatment program provides dental treatment to children in designated underserved communities.

The founding dean of the University of Manitoba's faculty of dentistry retired at the end of August.

Dr. Jack Neilson, who became dean on November 1, 1957, headed the faculty for 20 years. He stepped down from his post in 1977. Since that time, Dr. Neilson has been on the staff of the faculty in the Department of Stomatology.

He and his wife have retired to their summer home in Vernon, British Columbia.

According to a recent survey, the most trustworthy professional would be a dentist who could also pilot an airplane.

The Winnipeg Sun surveyed its readers in June and came up with the following top ten professionals who ranked as the most trustworthy. Tops in the trust category were pilots, with dentists ranking a close second. These two were followed by accountants, judges, engineers, clergymen, physicians, police, teachers and bankers.

Of the 25 professions surveyed, the middle ten in trustworthiness were: professional athletes, chiropractors, social workers, civil servants, cor-

porate executives, psychiatrists, employment counsellors, lawyers, stock-brokers and (believe it or not) game show hosts.

Ranking right after game show hosts came journalists. Journalists still ranked above politicians, real estate agents and car salesmen.

Two Saskatchewan dentists were honoured recently for long service to the province.

The College of Dental Surgeons of Saskatchewan presented plaques to Dr. R. O. Brett and Dr. W. T. Waite, commemorating their respective practices of 40 years duration in that province.

Dr. Brett, who practices in Regina, was a graduate of the University of Toronto, class of 1942. Dr. Waite, a graduate of the University of Alberta in 1942, has a practice in Saskatoon.

Both practitioners received their commemorative plaques at the College's annual Convention.

Statistics indicate that dentistry is attracting more females each year, in both Canada and the United States.

According to recent ADA statistics, the number of female first year dental school enrollments comprises 22 per cent of the total enrollments in U.S. dental schools. Statistics also indicate that many of these students are or have been registered dental hygienists.

Canadian statistics also show that more women are going into and graduating in dentistry every year. According to the R.K. House Manpower Supply Forecast, done for the Canadian Dental Association in 1982, 12 per cent of the graduates from Canadian dental schools were women, compared with 9.1 per cent in 1981.

The province of Quebec in 1982 had the highest number of female graduates in dentistry, with 28 graduating from all three provincial dental schools.

Gordon Swann, a former President of the Alberta Dental Association

and a DDS graduate of the Class of 1950, Faculty of Dentistry, University of Alberta, was recently named the 1983 Dental Alumni Outstanding Achievement Award recipient.

Dr. Swann has conducted a specialty practice as an orthodontist in Calgary since 1952.

He continues to be active in professional and community organizations. He is a former chairman of the University of Calgary board of governors, has served as a director of the Canadian Society of Forensic Science, as a trustee of the Alberta Heritage Foundation for Medical Research and as a member of the board of management of Calgary's Foothills Hospital.

Dr. Swann's many contributions to the University of Calgary have been recognized by the naming of a campus mall in his honor and the conferring of an honorary Doctor of Laws degree.

An American dentist, who had a practice for a time in Innisfail, Alberta, has been recognized as Alumnus of the Year by Loma Linda University in California.

Dr. Kenneth W. Pierson, who practiced dentistry in Innisfail, Alberta in 1980, is currently a mission dentist in Malawi, Africa. He graduated from the Loma Linda School of Dentistry in 1971 and, after two years service as a United States Air Force dentist, became a mission dentist in Africa.

He is currently Associate Director of Health for the Trans-Africa Division of the General Conference of Seventh-day Adventists. He also directs dental operations at the Adventist Health Centre in Blantyre, Malawi.

Cover design

The cover design of this edition is a departure — artwork interpretation of continuing education which is the theme of this edition of JCDA.

The work was designed by Bruce Rawlins, chief designer for an Ottawa, Ontario, graphics firm.

Dr. Douglas Yeo, head of the Department of Preventive and Community Dentistry and Associate Dean, Faculty of Dentistry, University of British Columbia, has been asked to join a steering committee to design and direct a project to develop standards of practice, quality assurance and competency assurance in dental hygiene.

This committee is now part of a working group on The Practice of Dental Hygiene which was set up by Health and Welfare Canada some time ago.

A society in France has just been formed which will study the problems and treatment of the geriatric dental patient.

La Société Française de Gerodontologie will study the pathology of elderly dental patients and the special treatment necessary for that particular group.

Clinical research and prevention will figure prominently in the mandate of the Society.

Society memberships are available by writing Dr. Gerard Maziere, 11 rue des Bourguignons, 92270-Bois, Colombes France.

The fourth World Medical Games took place in Paris, France, August 28 to September 3, 1983.

Previously held every two years, the Games will be held every year from 1983 on. The Games were open to doctors, dentists, pharmacists, veterinarians, midwives and physical therapists, as well as students in their final year of any of these disciplines.

Events in this year's games included the pentathlon, cycling, shooting, archery, fencing, golf, sailing, windsurfing, swimming, table tennis, tennis, squash, judo, athletics and horseback riding. Most of the events were open to both male and female competitors.

At press time it was not known if any Canadian practitioners had taken part in the games this year.

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CDA Resource Centre/Le Centre de documentation

NEW LIBRARY ACQUISITIONS

The following current acquisitions are available on loan from the Resource Centre/Library.

1. Dunlap, J.E. *Surviving in Dentistry: the Sources of Stress*. Tulsa, Oklahoma: Petroleum Publishing Co., 1977. 123p.
2. Houston, W.J.B. *Walter's Orthodontic Notes*. 4th ed. Bristol: Wright PSG, 1983. 218p.
3. Lange, B.M., Entwistle, B.M. and Lipson, L.F. *Dental Management*

of the Handicapped: Approaches for dental Auxiliaries. Philadelphia: Lea & Febiger, 1983.

4. Laney, W.R. and Gibilisco, J.A. *Diagnosis and Treatment in Prosthodontics*. Philadelphia: Lea & Febiger, 1983. 561p. 3 copies.

5. Morgan, D.H. and others. *Diseases of the Temporomandibular*

TITRES EN BIBLIOTHÈQUE

Les titres indiqués ci-dessous sont maintenant disponibles à la bibliothèque/centre de documentation de l'ADC.

Apparatus: a Multidisciplinary Approach. Toronto: Mosby, 1982. 659p.

6. Nanda, S.K. *The Developmental Basis of Occlusion and Malocclusion*. Chicago: Quintessence, 1983. 323p.

7. van Beek, G.C. *Dental Morphology: an Illustrated Guide*. 2nd ed. Bristol: Wright PSG, 1983. 135p.

NEW JOURNAL SUBSCRIPTIONS

1. *Community Dentistry and Oral Epidemiology* Published bimonthly by Munksgaard. Copenhagen.

2. *International Journal of Oral Surgery*. Published six times a year by Munksgaard. Copenhagen.

NOUVEAU ABONNEMENTS

3. *Journal of the Massachusetts Dental Society*. Published quarterly by the Massachusetts Dental Society. Wellesley, Mass.

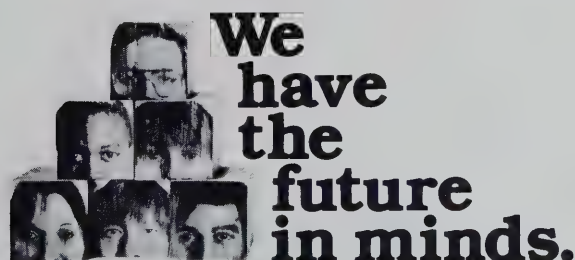
Effective immediately the library will be photocopying the contents pages of the most requested and important journals we receive and sending them to interested members each month as a special service. If you would like more information please contact:

À compter de maintenant, la bibliothèque de l'ADC photocopiera la table des matières des revues les plus importantes et les plus demandées qu'elle reçoit et, à titre de service spécial, fera parvenir des photocopies aux membres intéressés. Pour de plus amples renseignements, veuillez communiquer avec:

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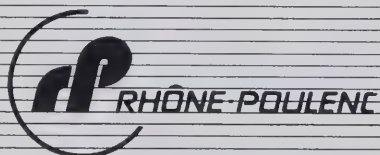
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Introductory Statistics for Dentistry and Medicine

Sidney L. Miller

*Reston Publishing Compny Inc.
Reston, Virginia.
302 pgs.*

In the preface to this basic textbook in biostatistics, the author discusses three levels for comprehension of the science which are appropriate for professionals: the ability to comprehend and evaluate the results of research carried out by others; the ability to design a simple experiment and apply basic statistical techniques in its execution as required in various health discipline graduate programs; and, at a higher level, the proficiency in experimental design and statistical analysis required by the career health researcher. The author states, rightfully, that his text is directed to the first two comprehension levels — to provide “a beginner’s set of tools for using statistics”.

The text is divided into 14 learning units, or chapters, which proceed in a logical progression through the complex discipline of statistics. Each unit is organized in popular fashion with behavioral objectives listed at the beginning, followed by a detailed discussion of the appropriate topic and a series of review exercises which allow the reader to practice newly acquired skills. Solutions to the review exercises are found in the appendices which also contain various statistical tables.

The book is well organized and written in a clear and readable style. The 14 units present basic statistical material under the headings of measurement, organization, and representation of data, measures of central tendency and variability, normal curves and Z scores, populations and samples, probability, significance, and hy-

pothesis testing, analysis of variance, Chi square, correlation and regression, and non-parametric statistics. The unit sequence of behavioral objectives, topic presentations, and discussion, examples and exercises facilitate assimilation of the material presented. For the practicing dentist and the critical reader, the final unit, which considers experimental design and evaluation of a scientific report, is of particular value.

If this book has a shortcoming, it is the paucity of references provided. There are occasional references to the statistical literature, but most articles cited are those used in the presentation of examples of the application of statistical techniques. Perhaps in an

elementary textbook, there is no need for many statistical references, but the reader who desires to delve deeper into the science needs some guidance on the direction to take.

Introductory Statistics for Dentistry and Medicine is one of the better basic texts in its field. The format is modern and the organization and style aid the reader in grasping an understanding of biostatistics. Both undergraduate and graduate students in the health sciences will find this book a valuable asset, as will the practitioner who has a keen interest in the subject.

This book was reviewed by R.E. McDermott, Head, Department of Community and Pediatric Dentistry, University of Saskatchewan.

Test-Taking Skills in Dentistry

Randolph E. Sarnacki

*Lea and Febiger
Philadelphia, PA.
66 pages
\$8.50 Can.*

This concise and well written little book would be a valuable addition to the library of test-takers and test-makers alike. The main objective is to make the individual “test wise” by familiarizing him/her with the various forms of multiple choice examination questions. When this is achieved, there is a reduction in the anxiety and confusion of the testee which in turn can maximize the candidate’s performance and resultant test scores. The information presented is not meant to substitute for knowledge in the subject area but rather to supplement it.

A terminology section which defines the “anatomy” of a multiple choice test item, is useful. In addition, the author provides a reminder of the carelessness that is often associated with the anxiety of taking a test. Particular attention is directed to the mistake that is so often made — not reading the instructions thoroughly and accurately. This applies to both the instructions for answering as well as the explanation of how the examination is to be graded. Needless to say, this pertains to all types of examination.

A multiple choice examination is the preferred mode of testing when one is attempting to comprehensively survey a large body of knowledge in a short time. That is why it is so frequently used for standardized and/or board-type examinations (e.g. Dental Admission Test, National Dental Ex-

Continued on next page

aming Board of Canada or U.S. National boards). The less sophisticated questions deal primarily with memory or lower levels of knowledge while more complex items can be constructed to assess the individual's knowledge at higher levels — i.e. analysis and synthesis. It is these types of questions and the format in which they are presented that the author illustrates for the test-taker. Examples from the simple to the complex are shown and the dentally oriented examples are skillfully used to illustrate the alternate formats most often encountered in board or standardized exams. He also clearly and convincingly demonstrates strategies for answering such complex items.

Other parts of the text deal with "pacing" during a test, what norm referencing means to test-takers, the pros and cons of "guessing", minor mistakes and carelessness of the test-takers. For the test-makers there is a good section on how to identify flaws in your items and how to avoid giving cues throughout the test. Sarnacki also offers suggested readings for each portion of the book and key words which could be used in library or computer searches on the subject.

The layout, organization and sequencing of this book makes it easy reading. Overall it would assist anyone who is involved with either classroom or standardized tests in becoming a defensive test-

taker. It has been well documented that being familiar with test formats does reduce confusion and anxiety in the testee therefore enhancing the opportunity for a more accurate assessment of the individual's knowledge. Since that is one of our major goals in testing I would recommend this book for students who want to improve test performance and for teachers who are serious about increasing the accuracy and reliability of their testing.

This book was reviewed by Marcia A. Boyd, Department of Restorative Dentistry, University of British Columbia, and chairman of CDA's Dental Admissions Test Committee.

Abrégé des Urgences Médicales au Cabinet Dentaire

R. Noto, J./P. Cavaillon et

P. Girard

*Masson, S.A.
Paris, France
332 pgs.*

Les urgences médicales au cabinet dentaire sont heureusement rares. Quand une urgence se produit, le praticien doit avoir les connaissances, le matériel et l'habileté à faire face à cette situation.

Noto, Cavaillon et Girard ont reconnu le besoin d'une approche compréhensive et bien organisée envers ce sujet. Le livre en est le résultat. Il est divisé en huit chapitres: Les éléments du diagnostic, le matériel, attitudes gestuelles, Pharmacologie et urgence, conduite à tenir, la prévention, la législation, et une annexe.

Le premier chapitre traite des éléments du diagnostic. Cette partie du livre est la plus importante car on ne peut traiter une condition qu'on ne reconnaît pas. On y présente un bilan concis des grandes fonctions, c'est-à-dire, neuro-psychique, respiratoire et cardio-vasculaire, suivis de l'interprétation de la gravité, d'une

étude symptomatique et étiologique.

Au chapitre 11, une description du matériel nécessaire à la réanimation et au soutien des fonctions vitales du patient est traitée. La présence de ce matériel au cabinet n'étant pas suffisante, le chapitre intitulé "Attitudes gestuelles" traite des méthodes et techniques qui permettent la réalisation d'une thérapeutique préventive ou curative pendant une situation d'urgence. Ceci inclut la pharmacothérapie parentérale et la réanimation cardio-pulmonaire.

Le rôle des agents pharmacologiques comme cause de situation d'urgence ainsi que leur indispensabilité dans le traitement est présenté au chapitre IV. Le sujet de la conduite à tenir est aussi abordé. On y présente "la synthèse des connaissances physiopathologiques, cliniques et thérapeutiques nécessaires à la mise en oeuvre des soins adaptés à une situation d'urgence donnée". Cette partie du livre est très bien structurée. Elle est si bien assimilée, qu'elle sera très utile au praticien qui aura à faire face à une situation d'urgence.

Parmis les trois chapitres suivants, celui qui traite de la préven-

tion est le plus utile. On y propose des principes généraux tels que la préparation psychologique du patient. On y propose aussi des principes spécifiques tels que la prévention d'hypoglycémie chez les diabètes.

Au chapitre VII, on traite de la législation et jurisprudence. Seules les généralités sont pertinentes, car la législation varie d'un pays à l'autre, ce qui limite l'utilité de ce chapitre.

La dernière partie de ce livre, l'annexe, est simplement un questionnaire médical pouvant servir de guide au lecteur qui l'utilise couramment dans le but de s'améliorer.

Abrégé des Urgences Médicales au Cabinet Dentaire traite à fond le sujet. Il est en général bien divisé. Cependant, l'amalgamation des chapitres un et cinq rendrait plus facile la mémorisation du matériel indispensable. La structuration (diagnostic, étiologie, conduite à tenir), situation par situation, serait plus utile que la division présentée par les auteurs.

Ce livre était critique par le Dr Daniel Morielli et le Dr. André Charest Chirurgie Buccale et Maxillo-Faciale, Québec, Québec.

La Bibliothèque et le Centre de documentation de l'ADC comptent une clientèle plus nombreuse

Placés sous la direction de Trudi Di Trolio, nouvelle bibliothécaire de l'ADC, la Bibliothèque et le Centre de documentation Sydney Wood Bradley Memorial font l'éloge des membres de l'ADC et des autres personnes qui font appel à leurs services.

Née au Canada, Mme Di Trolio a passé plusieurs années à St-Petersburg, en Floride, et s'est jointe à l'Association dentaire canadienne en octobre 1982. Elle détient un baccalauréat et une maîtrise en bibliothéconomie de l'Université de l'État de la Floride.

Les services que la Bibliothèque et le Centre de documentation de l'ADC offrent aux dentistes et au public se divisent en quatre catégories: le service de recherche MEDLINE, la photocopie des articles paraissant dans les périodiques, l'obtention d'articles de journaux des autres bibliothèques médicales et dentaires, et l'envoi de matériel documentaire, y compris de dossiers sur des sujets particuliers, à ceux qui en font la demande.

MEDLINE est un système de recherche bibliographique entièrement automatisé relié à la Bibliothèque médicale nationale de Bethesda, au Maryland. Grâce à ce système, les usagers peuvent obtenir des bibliographies sélectives d'articles parus dans plus de 3000 périodiques médicaux et dentaires du monde entier.

"Ce système jouit d'une grande popularité et, pour les membres de l'ADC, son usage est gratuit, observe Mme Di Trolio. Pour les non membres, chaque demande adressée à MEDLINE coûtera bientôt 25\$."

MEDLINE fait partie du Centre de documentation depuis février 1982 et, depuis, on le consulte de plus en plus. "Au début, on comptait environ cinq demandes par mois," note la bibliothécaire. "Maintenant, il y en a une trentaine en moyenne."

Certaines demandes viennent d'aus-



Photo par Heather Lang-Kuntz

Trudi Di Trolio, nouvelle bibliothécaire de l'ADC

si loin que la Nouvelle-Zélande et les usagers, si l'on en croit les commentaires exprimés, sont très satisfaits des réponses qu'on leur fait. "Votre système de recherche automatisé me fait envie," déclare un représentant de l'Association dentaire de la Nouvelle-Zélande; "je remercie sincèrement l'Association dentaire canadienne." "Voilà un service de l'Association dentaire canadienne qui m'a été d'un grand secours," remarque une personne de White Rock, en Colombie-Britannique. "Merci," dit encore un client satisfait d'Agincourt, en Ontario. "Vous rendez à la profession un service incomparable."

Par ailleurs, le Centre de documentation prépare des listes d'articles sur des sujets d'un intérêt commun en dentisterie. Ces listes sont publiées chaque mois dans le Journal de l'ADC et sont établies à l'aide de MEDLINE. Présentement, ce service

et d'autres services semblables (par exemple, la copie d'un article paru dans tel journal dentaire) sont gratuits. Très bientôt, cependant, chaque demande coûtera 5\$ pour ceux qui ne sont pas membres de l'ADC.

Jusqu'à maintenant, fait observer Mme Di Trolio, les listes les plus demandées ont été: "Les dentistes et le stress" et "Les ordinateurs dans les cabinets dentaires."

Mises à jour mensuelles

Chaque mois, encore à l'aide de MEDLINE, une mise à jour est faite sur un sujet particulier. Ce service est offert uniquement aux membres de l'ADC.

"Par exemple," explique Mme Di Trolio, "si un membre s'intéresse particulièrement aux articulations temporo-mandibulaires et qu'il a déjà reçu de la documentation à ce sujet, il peut demander une mise à jour. Cha-

Suite à la page suivante

que mois, on lui enverra une liste des derniers articles parus sur le sujet en question."

Depuis le 1^{er} septembre, le Centre de documentation offre un tout nouveau service en fournissant chaque mois à ceux qui en font la demande la table des matières des principaux périodiques.

"Grâce à ce service, explique Mme Di Trolio, les dentistes seront au courant des derniers articles qui se publient dans les journaux dentaires. Et les membres qui désirent lire un article précis pourront en demander une photocopie. Ce service est réservé aux membres de l'ADC seulement."

Selon Mme Di Trolio, l'une des priorités de la Bibliothèque de l'ADC est de mettre à jour sa collection de périodiques, de publications de l'association et du gouvernement, et de

volumes choisis. Présentement, la Bibliothèque compte environ 60 périodiques et prend souvent de nouveaux abonnements. Au cours de la dernière année, elle a acquis 300 nouveaux volumes. Chaque mois, le Journal de l'ADC publie une liste des nouvelles acquisitions de la Bibliothèque qui comprend non seulement les volumes et les périodiques, mais aussi les publications de l'association et du gouvernement.

Archives

À l'avenir, le Centre de documentation devra mettre en ordre sa collection d'archives.

"Nous espérons, de dire Mme Di Trolio, que la Bibliothèque deviendra un dépôt de publications historiques et d'archives sur la dentisterie au Canada. Nous souhaitons qu'un jour la collection d'archives sera unique et

contiendra des titres qui ne seront disponibles nulle part ailleurs."

Le Centre de documentation étudie encore la possibilité de fournir des services audio-visuels aux dentistes.

D'après un sondage récent, les praticiens dentaires privés seraient ceux qui ont le plus recours aux services du Centre de documentation. D'octobre 1982 à mai 1983, ils ont fait 430 demandes en tout. Les autres usagers sont les membres du personnel de l'ADC, surtout la préposée à l'information, les dentistes des cliniques et des hôpitaux, les étudiants en dentisterie, les spécialistes et les fabricants de produits dentaires.

La Bibliothèque de l'ADC est ouverte depuis plus de 30 ans, remarque Mme Di Trolio. On espère qu'elle continuera à servir encore la profession durant de nombreuses années.

La vérité touchant les demandes d'indemnité — CDSPI

Cas no 3 Les incendies

Caractère de la demande d'indemnité:
un incendie ayant causé des dommages dans un cabinet dentaire avec perte d'équipement et de matériel.

Cause:
fils défectueux (présume-t-on)

Temps des réparations:
temps présumé pour réparer les dommages et remplacer l'équipement: de 6 à 8 semaines

Valeur du contenu du cabinet:
65 000\$

Assurance pour interruption du travail:
aucune

Tôt un matin de février, un incendie se déclare dans un immeuble où se trouve le cabinet d'un dentiste. Au deuxième étage du centre d'achats en question, les dégâts sont considérables. Le cabinet dentaire est grande-

ment endommagé par le feu, l'eau et la fumée. Seul le plafond tient.

Des appareils importants sont détruits, y compris deux appareils radiographiques, un compresseur, trois fauteuils, un appareil à succion à pouvoir centralisé et plusieurs autres pièces. Une suie noire a pénétré dans les armoires, rendant leur nettoyage impossible et obligeant à les remplacer.

Au moment de l'incendie, le contenu du cabinet est assuré. Il n'y a donc aucun problème pour réparer les dommages et remplacer l'équipement et le matériel perdu. Les dossiers des patients ont pu être récupérés.

Malheureusement, le dentiste n'est pas assuré pour interruption du travail et doit assumer les dépenses courantes pendant qu'on répare son cabinet. Il doit de plus assumer la perte de son revenu professionnel.

Nous avons donné un compte rendu détaillé de cette demande d'indemnité réelle afin de fournir des ren-

seignements vrais au sujet des demandes d'indemnité. De plus, nous avons voulu indiquer que, dans de nombreux cas, les garanties sont **insuffisantes** pour couvrir toutes les pertes. Dans ce cas-ci, le dentiste a subi une perte considérable parce qu'il n'était pas assuré pour interruption du travail.

Si vous avez besoin de conseils pour vous assurer que votre régime d'assurance est suffisant, veuillez écrire aux **CDSPI: 2 Lansing Square, Suite 600, Willowdale, Ontario, M2J 4Z3**, ou téléphoner à notre Service central de renseignements:
1 800 268 5418

l'Ouest canadien, les Maritimes et la partie de l'Ontario dont le code régional est 807

1 800 268 3411
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1982 Honour Roll

Tableau d'honneur 1982

Chairman's message

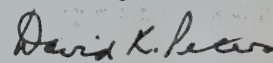
Since the inception of the Fund in 1962, our Annual Report and Honour Roll of Contributors have always been combined in one publication.

I am happy to say that over the years the number of supporters of CFDE and its programs to promote good dental health services have both grown so much that in 1982 it was decided it would be more informative to produce two publications.

All of you who have read our Annual Report, which was inserted in the April 1983 issue of the CDA Journal, will recall that complete details of the many ways CFDE is helping dentistry were included.

The Canadian Fund for Dental Education has an important role to play in the future, just as it had in the past. This is the reason it solicits your continuing generous support.

To the men and women of the profession listed in these pages, to our friends in the Dental Industry Association and the dental laboratory industry, and to the various foundations, corporations and individuals who have made this progress possible, the officers and trustees of the Canadian Fund for Dental Education extend grateful appreciation. They also wish to express their sincere thanks to the Canadian Dental Association for publishing the Fund's Annual Report and Honour Roll in its Journal.



David K. Peters, D.D.S.

Le message du président

Depuis les tout débuts du Fonds en 1962, notre rapport annuel et le tableau d'honneur ont toujours été publiés dans le cadre d'un document unique.

C'est avec grand plaisir que je suis en mesure de signaler qu'au cours des années, le nombre des donateurs et celui des programmes destinés à promouvoir l'efficacité de la médecine dentaire, ont tous deux tellement augmenté, qu'il a été décidé en 1982 qu'il serait préférable de produire deux publications.

Tous ceux d'entre vous qui ont lu notre rapport annuel, publié au numéro d'avril 1983 du Journal de l'ADC, se souviendront que nous avons alors présenté une liste détaillée des services offerts par le FCED en vue de l'avancement de la médecine dentaire.

Le Fonds continuera à jouer un rôle aussi important à l'avenir qu'il l'a fait dans le passé, et voilà la raison pour laquelle il continue à faire appel à votre aide.

Les fiduciaires et membres du FCED expriment une vive gratitude vis-à-vis des personnes énumérées dans ces pages, de tous nos amis au sein de l'Association des industries dentaires et des laboratoires dentaires, aux nombreuses fondations et compagnies, ainsi qu'aux particuliers qui ont facilité notre cheminement et nos progrès. Ils remercient sincèrement l'ADC pour avoir publié le rapport annuel et le tableau d'honneur du Fonds dans son Journal.



David K. Peters, D.D.S.

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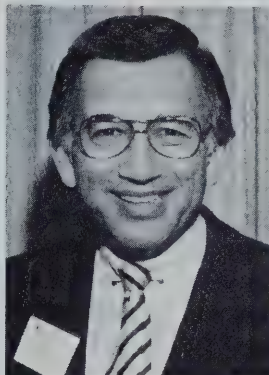
Assistance record aux Journées dentaires du Québec

À nouveau cette année, une assistance record a pris part au congrès annuel de l'Ordre des dentistes du Québec (ODQ), les Journées dentaires du Québec, qui s'est tenu à Montréal à la fin de mai.

Il y a eu en tout 4 725 congressistes, ce qui comprenait 1 979 dentistes, 735 exposants, 495 assistantes, 132 hygiénistes et 129 étudiants en dentisterie.

Pour la première fois dans l'histoire des Journées dentaires du Québec, trois grands noms de la médecine dentaire en Amérique du Nord ont participé au congrès. Il s'agit du Dr Burton Press, président de l'Association dentaire américaine, du Dr William Thompson, président de l'Association dentaire canadienne, et du Dr Marc Boucher, président de l'ODQ.

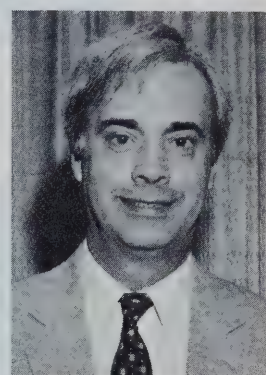
Suivant la tradition établie, le Dr



Dr. Press



Dr. Thompson



Dr. Boucher

Boucher a, lors d'un déjeuner d'accueil, félicité les nouveaux diplômés des trois écoles dentaires de la province et salué leur entrée officielle dans la profession. Cette année, le Dr Boucher était assisté du Dr Press. Le Dr Thompson a également été invité à

prendre part au déjeuner.

Les deux présidents invités ont participé activement au programme du congrès. En tout, plus de 70 cliniciens ont pris part au programme multidisciplinaire durant les trois jours du congrès.

Les Groupes ou les Personnes Intéressés à Présenter

une démonstration clinique

au

Congrès National de l'ADC et de l'ODQ

qui aura lieu à Montréal du 8 au 12 Avril 1984
sont priés de communiquer le plus tôt possible avec:

le Dr. Michel Jahjah

Les Journées Dentaire du Québec

3565 rue Berri, pièce 200

Montréal (Quebec) H2L 4G3



Le régime
d'assurance
des dentistes
du Canada

BULLETIN

Renseignements importants
sur vos assurances

Désormais : tarifs vie réduits pour les non-fumeurs offerts par le RADC

Si vous n'avez pas fumé de cigarette au cours des douze derniers mois, vous pouvez économiser sur vos primes d'assurance vie avec les nouveaux tarifs non-fumeurs offerts par le régime d'assurance des dentistes du Canada.

Si vous participez à l'assurance vie du RADC, votre documentation est déjà à la poste. Veuillez nous appeler si vous n'avez rien reçu au 30 septembre. Vous avez jusqu'au 31 octobre pour être admissible aux tarifs non-fumeurs pour la facturation de janvier.

Si vous ne participez pas à l'assurance vie du RADC, nous nous ferons un plaisir de vous faire parvenir tous les renseignements voulus sur ces tarifs non-fumeurs, qui sont très intéressants. Veuillez appeler le Canadian Dental Service Plans Inc. pour obtenir les tarifs et tous les détails.

Pour un service personnalisé ou pour tout problème d'assurance,
contacter le Service de renseignements du CDSPI, à n'importe quelle
heure, sans frais :

1.800.268.54.18 Provinces de l'Ouest, provinces atlantiques et région de l'Ontario
avec l'indicatif régional 807
1.800.268.34.11 Québec et Ontario, sauf pour la région avec l'indicatif régional 807
497.71.17 Toronto et environs



Le régime
d'assurance
des dentistes
du Canada

Régimes parrainés par vos associations
dentaires nationale et provinciales et
administrés par le Canadian Dental Service
Plans Inc. 2, square Lansing, Bureau 600,
Willowdale, Ontario, M2J 4Z3

L'hépatite virale B: un problème mondial

À la suite d'une récente assemblée touchant la prévention du cancer du foie, l'Organisation mondiale de la santé a émis une déclaration liant le cancer du foie et l'incidence de l'hépatite virale B.

Publiée dans le Bulletin de la FDI (no 129, mai 1983), la déclaration se lit ainsi:

"Le cancer du foie est l'une des formes de cancer les plus communes dans le monde et l'une des formes les plus fréquentes dans les pays en voie de développement. La preuve que l'hépatite virale B joue un rôle dans l'étiologie du cancer primitif du foie est fondée sur des observations épidémiologiques et géographiques indiquant qu'il y a un étroit rapport entre l'hépatite virale B et le cancer du foie, ainsi que sur les derniers résultats des études en biologie moléculaire montrant que le DNA viral fait partie du matériel génétique de l'hôte.

"Dans le monde entier, la survie et

la résistance du virus hépatique B sont dues à l'immense réserve de sujets porteurs dont le nombre, estime-t-on au bas mot, dépasse les 200 millions. La fréquence de la maladie dépend de la "transmission" prolongée du virus par un pourcentage des sujets porteurs et de divers modes de contamination.

"Il est maintenant temps que des mesures internationales soient prises pour planifier et tenter, en utilisant le vaccin contre l'hépatite virale B, un certain nombre d'essais auprès des populations où l'on sait que la prévalence des sujets contaminés, des sujets porteurs et des personnes atteintes du cancer du foie est élevée."

Sujet au Congrès de la FDI

En novembre prochain, l'hépatite virale B sera l'un des principaux sujets discutés au Congrès de la FDI à Tokyo.

Le 18 novembre, de 14 heures à 17

heures, il y aura une séance publique intitulée: L'hépatite et le dentiste. Après une présentation de E. Mitchell, des États-Unis, J. Mosley, son compatriote, résumera les connaissances actuelles sur l'hépatite comme maladie.

M. Mori, du Japon, fera état des maladies hépatiques dans le monde, puis R. Woods, de l'Australie, présentera un exposé sur les mesures à prendre dans les cabinets dentaires pour prévenir la contamination.

Pour conclure, E. Mitchell parlera du vaccin contre l'hépatite virale B et de ce qu'il signifie pour le dentiste.

Dernièrement, plusieurs pays membres de la FDI, y compris les États-Unis, le Royaume-Uni et la République fédérale de l'Allemagne, ont également émis des déclarations sur l'hépatite virale B et les nouveaux vaccins, ainsi que sur leur signification pour les dentistes qui exercent dans ces pays.

Même soucis pour les dentistes coréens et canadiens

Selon le *Herald* de la Corée, l'Association dentaire du pays semble avoir, avec ses 4000 membres, les mêmes soucis que l'ADC.

Cette année, l'un des principaux projets de l'Association dentaire coréenne sera de gérer des programmes de prévention dentaire à l'intention du public.

En outre, celle-ci voudra recueillir des données touchant les patients dentaires, fixer des normes pour les instruments et les installations dentaires, et préparer la Douzième Conférence dentaire de l'Asie et du Pacifique qui se tiendra à Séoul en 1986.

Plus de 90 pour cent de la population de la Corée, y compris un grand nombre d'enfants, souffraient de caries, mais le gouvernement a établi en 1977 un régime d'assurance-maladie qui couvre les soins dentaires.

Les moyens de prévenir la carie semblent être les mêmes tant en Corée qu'au Canada. Ainsi l'Association dentaire coréenne recommande aux

gens de visiter régulièrement le dentiste, de se brosser les dents, d'utiliser du fluor et de se nourrir convenablement.

Régime d'épargne-retraite de l'ADC

Les valeurs respectives du Régime d'épargne-retraite de l'Association Dentaire Canadienne étaient les suivantes au 31 juillet 1983.

<i>Fonds d'actions ordinaires</i>	\$73.66969
<i>Fonds à revenu fixe</i>	\$36.05386
<i>Fonds garanti</i>	\$26.50090
<i>Fonds de placement</i>	\$15.01886

L'avoir total (valeur marchande) du régime s'élevait à \$37,160,478.

Au 30 juin 1983, les chiffres du mois précédent étaient les suivants:

<i>Fonds d'actions ordinaires</i>	\$72.70502
<i>Fonds à revenu fixe</i>	\$36.35542

<i>Fonds garanti</i>	\$26.31719
<i>équilibré</i>	\$15.00716

L'avoir total (valeur marchande) du régime s'élevait à \$37,060,973.

Pour de plus amples renseignements, veuillez écrire à l'adresse suivante: Canadian Dental Service Plans Inc., Ste. 600, 2 Lansing Square, WilLOWdale, Ontario M2J 4Z3, ou appeler le service de renseignements du CDSPI en composant 1-800-268-5418 (appel sans frais pour l'Ouest canadien, les Maritimes et l'Ontario où le code est 807 seulement), 1-800-268-3411. (appel sans frais pour le Québec et l'Ontario sauf où le code est 807), et 497 7117 (Région métropolitaine de Toronto).

En bref —

L'ordre des dentistes du Québec vient de rendre hommage à l'un de ses membres.

Il s'agit du Dr Conrad Godin, de Trois-Rivières (Québec) à qui on a remis une plaque commémorative lors de l'assemblée annuelle de l'ODQ. Le Dr Godin exerce la dentisterie depuis 50 ans.

En plus d'être dentiste, le Dr Godin est quelque peu historien, puisqu'il consacre ses loisirs à l'étude de l'histoire et du patrimoine de la Mauricie, au Québec.

C'est le Dr Marc Boucher, président de l'ODQ, qui a remis la plaque au Dr Godin.

Robert Donald McAllister vient d'être décoré de l'ordre du Canada par le Gouverneur Général, l'Honorable Edward Schreyer.

Ancien président du *Lions Club* de Azilda (Ontario), Bob McAllister consacre tout son talent et ses énergies à l'amélioration des services de santé dentaire et générale dans les pays en voie de développement des Caraïbes.

Présentement, il continue à acheminer du matériel médical et dentaire reçu en dons vers les Caraïbes et certaines parties de l'Amérique du Sud.

Dans certaines régions défavorisées du Nord du Canada, les enfants recevront à nouveau des soins dentaires en 1983-1984.

Le 1^{er} juin dernier, le Service de santé du Nord-Ouest dont la base se trouve à Kenora, en Ontario, a relancé son programme dentaire dans les écoles en augmentant son personnel de quatre nouveaux membres.

Durant l'année 1982-1983, le programme a été négligé parce que le nombre des dentistes n'était pas suffisant.

Le Dr David Reidiger, qui a obtenu

son diplôme cette année à l'Université du Manitoba, et son assistante, Trish Edwards, une hygiéniste de Winnipeg, travailleront dans la région de Dryden, Sioux Lookout et Vermilion Bay. Les Drs David McDermid et Liz McKenzie, deux diplômés de l'Université du Manitoba cette année, travailleront dans le district de Emo et de Rainy River.

Suivant son programme dentaire pour les écoles, le Service de santé du Nord-Ouest fournit des soins aux enfants des localités reconnues comme étant défavorisées.

À la fin du mois d'août dernier, le doyen fondateur de la Faculté dentaire de l'Université du Manitoba a pris sa retraite.

Il s'agit du Dr Jack Neilson qui était devenu doyen le 1^{er} novembre 1957 et qui a dirigé la Faculté pendant 20 ans. En 1977, il abandonnait son poste, mais continuait à faire partie du personnel de la Faculté en travaillant pour le Département de la stomatologie.

Le Dr Neilson s'est retiré avec son épouse dans leur demeure estivale sise à Vernon, en Colombie-Britannique.

D'après un sondage récent, le professionnel le plus digne de confiance serait un dentiste qui pourrait également piloter un avion.

En juin dernier, le *Winnipeg Sun* a effectué un sondage auprès de ses lecteurs qui avaient à déterminer parmi les professionnels ceux qui inspirent le plus confiance. En tête, on a placé les pilotes, suivis de près par les dentistes. Viennent ensuite les comptables, les juges, les ingénieurs, les gens d'église, les médecins, les agents de police, les enseignants et les banquiers.

Le sondage proposait 25 catégories de professionnels. Après les dix déjà mentionnées, on a rangé celles des athlètes professionnels, des chiropraticiens, des travailleurs sociaux, des fonctionnaires, des directeurs de corporation, des psychiatres, des orienteurs, des avocats, des agents de

change et, croyez-le ou non, des amateurs de jeux télévisés.

Après, on trouve les journalistes qui précèdent les politiciens, les agents d'immeuble et les vendeurs de voitures.

Maintenant, vous savez à qui vous adresser pour acheter une voiture: votre dentiste ou un pilote d'avion.

Récemment, le Collège des chirurgiens dentistes de la Saskatchewan rendait hommage à deux dentistes de la province pour les longues années qu'ils y ont travaillé.

Les Drs R.O. Brett et W.T. Waite ont ainsi reçu une plaque commémorative chacun pour avoir exercé leur profession pendant 40 ans dans la Saskatchewan.

Diplômé de l'Université de Toronto en 1942, le Dr Brett exerce à Regina, tandis que le Dr Waite, diplômé de l'Université de l'Alberta en 1942 également, exerce à Saskatoon.

Tous deux ont été honorés lors du congrès annuel du collège.

Suivant les statistiques, plus de femmes s'intéressent à la dentisterie chaque année, tant au Canada qu'aux États-Unis.

D'après les dernières statistiques de l'Association dentaire américaine, le nombre des femmes qui s'inscrivent en première année dans les écoles dentaires des États-Unis compte pour 22 pour cent de toutes les inscriptions. En outre, nombreuses sont celles qui, parmi elles, sont ou ont été des hygiénistes dentaires agréées.

Les statistiques pour le Canada révèlent des tendances similaires, plus de femmes entreprenant des études en dentisterie et obtenant un diplôme dentaire chaque année. Suivant le Rapport sur les ressources en personnel préparé par la firme *R.K. House* pour l'Association dentaire canadienne l'an dernier, 12 pour cent des diplômés sortant des écoles dentaires canadiennes étaient des femmes. Ce pourcentage n'était que de 9,1 pour cent en 1981.

C'est au Québec qu'il y a eu le plus

grand nombre de diplômées en dentisterie en 1982. Dans les trois écoles dentaires de la province, on en a compté 28.

Gordon Swann, ancien président de l'Association dentaire de l'Alberta et diplômé de la promotion de 1950 à la Faculté dentaire de l'Université de l'Alberta, vient de recevoir la récompense pour mérite éminent des Anciens Étudiants dentaires pour 1983.

Le Dr Swann travaille comme orthodontiste à Calgary, depuis 1952.

Il participe toujours à différents organismes progressionnels et communautaires. Ancien président du Conseil d'administration de l'Université de Calgary, il a également été directeur de la Société canadienne des sciences judiciaires, administrateur de la Fondation du patrimoine pour la recherche médicale et membre de la Direction de l'Hôpital Foothills à Calgary.

À cause de ses nombreuses contributions à l'Université de Calgary, un mail du campus a été nommé en son honneur. De plus, on lui a conféré un doctorat honoraire en droit.

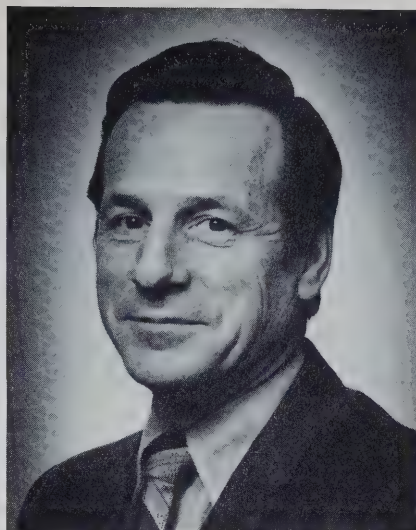
Une nouvelle société vient de voir le jour en France. Son but est d'étudier les problèmes de santé des personnes âgées et les traitements qui leur conviennent.

Il s'agit de la Société française de gérodonologie. Celle-ci s'emploiera à comparer les pathologies spécifiques des patients dentaires âgés et les thérapeutiques particulières qu'ils nécessitent.

Pour atteindre ce but, la société se livrera à des travaux de recherche et préconisera la prévention.

Pour se joindre à la société, on doit adresser une demande au Dr Gérard Mazière, 11, rue des Bourguignons, 92270-Bois Colombes, France.

Le Dr Douglas Yeo, directeur du Département de dentisterie préventive et communautaire et doyen adjoint de la Faculté dentaire de



Le Dr Douglas Yeo

l'Université de la Colombie-Britannique, a été invité à se joindre à un comité directeur créé pour former et diriger un projet visant à établir des normes d'exercice, de qualité et de compétence en hygiène dentaire.

Ce comité fait maintenant partie d'un groupe de travail touchant l'exercice de l'hygiène dentaire créé il y a quelque temps par Santé et Bien-être social Canada.

Du 28 août au 3 septembre 1983 ont eu lieu à Paris, en France, les IV^e Jeux mondiaux de la médecine.

Auparavant, ces jeux étaient tenus tous les deux ans, mais à compter de cette année, ils auront lieu annuellement. Ils sont ouverts aux médecins, aux dentistes, aux pharmaciens, aux vétérinaires, aux sages-femmes et aux médecins thérapeutes ainsi qu'aux étudiants qui, dans ces disciplines, en sont à leur dernière année d'études.

Cette année, il y a eu des compétitions dans les sports suivants: le pen-

tathlon, le cyclisme, le tir, le tir à l'arc, l'escrime, le ping-pong, le golf, la voile, la planche à voile, la natation, le squash, le judo, l'athlétisme et l'équitation. La plupart des compétitions étaient ouvertes aux deux sexes.

Les vainqueurs ont reçu des médailles et des certificats pour leurs performances.

La 22^{ème} Exposition dentaire internationale qui a eu lieu à Munich, en Allemagne, du 9 au 14 mai 1983, a été un succès, selon les organisateurs, l'Association de l'industrie dentaire de l'Allemagne.

Plus de 4 000 dentistes, techniciens dentaires, assistantes dentaires et représentants commerciaux ont visité l'exposition. On y comptait 507 exposants venant de 23 pays participants différents.

On comptait également un haut pourcentage de personnes venant d'outre-mer, tant des scientifiques que des commerçants. Les premiers représentaient non seulement la dentisterie, mais aussi des disciplines connexes, telles la chimie, la microbiologie, la bactériologie et la physique.

Il va de soi, cependant, que la plupart étaient des dentistes et des techniciens dentaires.

On a rendu dernièrement hommage aux dentistes américains pour avoir maintenu le prix des soins médicaux peu élevés.

Dans un discours prononcé lors de l'ouverture des audiences touchant l'inflation des soins de santé, l'Honorable Orrin Hatch, sénateur du Utah, a déclaré: "Parce que les dentistes ont fait ressortir les avantages des soins préventifs moins coûteux et qu'ils ont demandé aux patients de participer à des régimes d'assurance dentaire, le coût des services dentaires s'est élevé à un taux bien au-dessous de ceux que l'on a relevés pour les autres disciplines médicales."

M. Hatch prenait la parole devant le Comité de la main-d'oeuvre et des ressources en personnel du Sénat américain.

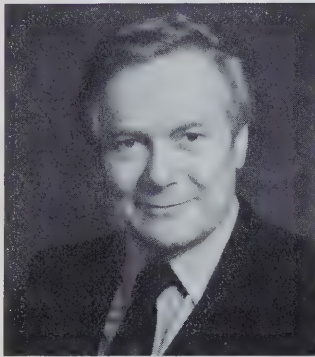
Page couverture

La page couverture de ce mois-ci est spéciale — dessin thématique représentant l'éducation permanente qui est le thème de ce mois-ci.

Le dessin était conçu et réalisé par Bruce Rawlins, concepteur principal d'une maison d'arts graphiques située à Ottawa, (Ontario).

Surveying preclinical and clinical programs as part of the accreditation process of dental faculties

Carl Osadetz, DDS, MEd



Dr. Carl Osadetz, Chairman,
Division of General Practice/
Director of Clinics,
Faculty of Dentistry,
University of Alberta.
Examiner for the National
Dental Examining Board

ABSTRACT

As a self-governing profession, Dentistry in Canada is continually concerned with matters related to quality dental care delivery as well as quality dental education. This article discusses aspects of the accreditation process of dental faculties as related to practical programs. The author argues that accreditation should be considered an examination of quality education rather than the provision of quality dental health care delivery. This distinction is often not recognized even by members of our profession.

Recently, the Canadian Dental Association through the Council on Education has devoted special attention to preclinical and clinical programs during accreditation.⁽¹⁾ This special attention has been in response to a trend to examine "product" or the "outcome" of our educational process. Certain segments of the profession are questioning whether an examination of process is adequate to ensure quality education. For several years now, our confreres in the United States of America have been considering product assessment of dental institutions.⁽²⁾ The methodology by which this assessment can be accomplished has not been tested nor have the criteria by which

the product is to be evaluated been explicitly defined.

This paper proposes to discuss the accreditation survey of preclinical and clinical instruction under the headings of purpose, and issues in methodology. By understanding the purpose of accreditation we can evaluate what advantages, if any, can result from the examination of practical courses. Does an examination of practical courses facilitate the evaluation of product? Does this examination of practical courses assist in the evaluation of quality education? Does quality education ensure quality health care delivery? What methodology is practical for the purpose of accreditation? The following discussion will centre on the previous questions and hopefully will provide a forum for discussion of future directions for the process of accreditation.

THE PURPOSE of ACCREDITATION

Accreditation has been defined by the office of Education of the Department of Health, Education and Welfare as a process whereby an association or agency grants public recognition to a school, institution, university or specialized program of study, that has met certain established standards as determined by initial and periodic evaluation.⁽³⁾ Although this statement defines the process of accreditation it does not explain what purpose this process serves. Boyd⁽⁴⁾ states that the basic purpose of accreditation is to assess and promote educational quality. Astin and Panos⁽⁵⁾ writing about the evaluation of educational programs in Thorndike's Text are more specific suggesting that, "the fundamental purpose of program evaluation is to produce information which can be used in educational decision making."

Obviously an accreditation survey provides information by an external agency about an institution's programs, facilities and staff as well as their adequacy in comparison to the accepted norms of similar educational

institutions. If, following an accreditation visit, the Dental Faculty is offered suggestions or recommendations, these findings can be used by the institution in one of three ways. The faculty (a) may decide to continue certain programs in their present form; (b) may decide to modify these programs or; (c) may decide to terminate these programs.⁽⁵⁾ Sometimes new thrusts have to be considered or suggested to keep a curriculum well balanced or in touch with society's projected needs.

Although to some the inclusion of practical courses during accreditation seems self-evident, to others, it appears redundant or unnecessary. The processes and skills developed in preclinical and clinical instruction are presently understood to a limited degree. Preclinical instruction attempts to simulate various clinical situations and provides an opportunity for the assessment of psychomotor development. Some studies indicate that this simulation predicts student performance in future clinical programs.⁽⁶⁾ Most dental faculties employ preclinical instruction to assure some degree of skill development for hazard free operations of dental instrumentation.

Research has shown that the clinical experience is complex.^(7,8) There is little doubt that certain discipline skills are developed through work sample experience.⁽⁹⁾ However, not many courses of instruction identify these skills in a behavioral manner, nor do they emphasize objective evaluation.

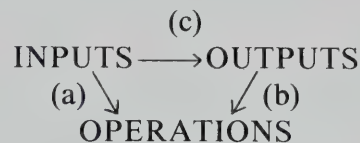
Many skills which are developed clinically are in the affective domain, and these skills, least of all, have not been well defined.⁽¹⁰⁾ Some of these skills are not taught or specified, yet dental students are expected to possess these attributes. Examples of these affective characteristics are: confidence, organization, time management, self-evaluation and quality determination. If these are desirable characteristics in a graduate, should not our schools provide students with objectives, instruction and evaluation in these areas? If these aforementioned qualities are important to dentistry, it is only logical that the mechanism by which students develop these skills should be part of the accreditation process.

The fact that students acquire many essential dental skills in preclinical and clerical courses is adequate reason to justify including these programs during accreditation surveys.

Another reason for scrutinizing practical programs to a greater degree is that these courses consume approximately one-third of the total clock hours in a dental curriculum.⁽¹¹⁾ Most dental curricula are designed with the premise that each graduate may seek licensure to practice at some point in time. Therefore, practical training assists development of skills which a graduate requires to treat patients acceptably and to meet licensing requirements. The recent move by the Canadian Dental Association to evaluate the product during preclinical and clinical courses therefore has merit and can be justified as to the additional involvement of manpower and time.

ISSUES RELATED to METHODOLOGY of SURVEYING PRACTICAL PROGRAMS

Any educational program consists of three components, namely inputs, operations and outputs.⁽⁵⁾ These components have been represented as having the relationships depicted in **Figure 1**.



Inputs

Inputs represent the students' behaviour, as talents, skills, aspirations, motivations, aptitude and potential for growth. These are the "givens" with which the educational process has to function. A measure of input is available from the admission testing and criteria utilized in selecting candidates for dental training. Inputs are important because they ultimately define the potential which allows students to achieve an anticipated output.

Outputs

Outputs refers to the objectives of the educational program as well as any side effects. Astin and Panos⁽⁵⁾ refer to outputs as "student's achievements knowledge, skills, aptitude for future learning, values, personality, interpersonal relations, and other behaviours that are likely to be influenced by the educational program." Outputs, in the broadest sense, represent the graduates of our dental schools. Besides the dental skills graduates are expected to possess social consciousness, moral soundness, management-administrative ability, a sense of pride in the profession and a spirit of inquiry.⁽¹¹⁾ Boyd⁽⁴⁾ states that characteristics of product are as follows: "Every professional student shall possess at graduation (a) a minimum body of basic and fundamental knowledge which is commonly possessed by members of the profession; (b) skill in handling source materials and in adding to one's previously acquired body of knowledge; (c) the ability to think, analyze and act in the presence of new or unprecedented situations and; (4) an ethical attitude toward the uses to which a member of the profession may put his knowledge and skill."

In this respect product assessment by an accreditation visit is difficult if not impossible because of the limited means and time at the disposal of an accreditation survey. Is not the development and assessment of the aforementioned qualities which graduates are expected to acquire best left to the Faculty? The various faculty members of a school have four years in which to assess whether a student displays the potential for the development of professionalism whereas an accreditation team may have four days. Obviously the survey of preclinical and clinical programs would not accurately reflect an assessment of product nor would this be practical at this time.

Continued on next page

In the United States of America the assessment of product in this broadest context is attempted through State Board Examinations. Since 1971 in Canada the rule has been that provincial licensing bodies accept the National Dental Examining Board as evidence of acceptable qualifications for practice for licensure. The National Dental Examining Board, on the other hand, has recognized graduates of accredited dental faculties as acceptable for certification.

At this point, it may be useful to mention the different meanings ascribed to the word "product". Product evaluation in these discussions has been used to mean the measure of the outcome of our teaching programs — namely the graduate. The term product can also refer to the measurement of a technical outcome of a student's performance. This is the product which Gronlund⁽¹²⁾ refers to when he states, "when pupil performance results in some type of product it is frequently more desirable to judge the product rather than the procedure". Some members of our profession feel that an examination of this product will be an assessment of technical competence. Santangelo⁽²⁾ states that "Intricately intertwined with and often inseparable from clinical teaching are the professional services rendered to patients in intramural and extramural clinics."

Preclinical and clinical product (product of performance) evaluation has been the centre of considerable research and discussion.⁽¹³⁻¹⁹⁾ The most significant findings of these studies are that evaluator reliability is subject to many variables. MacKenzie⁽²⁰⁾ identifies as many as sixteen reasons why evaluator assessments are inconsistent. These difficulties of identifying categories of excellence may be, as one philosophic author⁽²¹⁾ writing about quality suggests, "People differ about quality not because quality is different but because people are different in terms of experience." Under the constraints of time and in the interest of cost containment, but primarily due to the inherent difficulties evaluating product of performance, is presently of questionable use in accreditation. The important context of product of performance evaluation, as related to the accreditation process, is that the survey members should establish that the product is being evaluated at the institution and that this evaluation is in accordance with established criteria. Staff and students should be aware of these criteria in order that some consistency of performance and evaluation may be established.

In an attempt to examine product of performance, the Commission on Dental Accreditation of the American Dental Association requires dental patient recalls for observation and evaluation as part of the site visit (**Appendix I**). This process is subject to the weakness of examiner reliability as well as to patient variability. Anyone involved with institutional clinical teaching is aware of the situation and the unique treatment needs of patients. In addition, treatment attempted at times at a dental teaching institution may be heroic and not prag-

matic. What are the examiners able to conclude from their examination and evaluation of patients during a site visit? The product of performance as exemplified by student patient treatment without the context of difficulties encountered during treatment sessions, adds another variable. Some patients are co-operative; others co-operate to a point, be it in keeping appointments or in following post-treatment instruction. Some patients, even though co-operative, display difficulty of treatment such as access, controlling the operative field or controlling a gagging reflex. How is the evaluation applied with any reliability? Do two observed crowns which were judged excellent counter one inlay which was of questionable acceptability? Is not the examination of specifics of this nature in contradiction to the purpose of accreditation?

Boyd⁽⁴⁾ feels that accountability can be accomplished without stifling individual initiative and imagination. Accreditation standards should be broadly conceived and applied so that changes can be anticipated and encouraged. Kapur⁽²²⁾ in his paper on the accreditation of hospital residency programs in dentistry also suggests general, flexible accreditation requirements and specifies that the role of the accreditation commission should consist of:

- (1) assuring adherence to published information, brochures, and curriculum.
- (2) establishing that modern patient care practices are used in the management of patients, and
- (3) determining that an appropriate academic environment exists and is utilized for the program. Including specifics during a survey, such as patient treatment rendered by undergraduate dental students, at the present time, has many variables and the results can provide only questionable information.

Operations

Operations in **Figure 1** represent the educational factors which comprise the changes in the environment associated with any educational program. These may be the instructional techniques, organization, strategy as well as the physical environment.

EVALUATING PROGRAMS — METHODS AVAILABLE TO ACCREDITATION SURVEYS

A well documented and basic explanation of program evaluation is provided by Astin and Panos⁽⁵⁾. This section on evaluating programs is a summary of their presentation.

Since evaluation is based on the collection of a variety of information, one must discriminate in assessing this educational data. Data of a research nature which have controlled variables and should be amenable to replication although desirable is not applicable to most evaluations of program. It is definitely most desirable that information of a research nature is used to interpret the

results of a survey. However, in so doing the findings will become classified as "folklore" or "anecdotal". Folklore is an untested but widely held belief such as the relationship between students and staff ratio and learning. Anecdotal findings although applied as a generalization are usually not a widely held belief. The reason specific information is considered folklore or anecdotal for the purpose of program comparison is that institutions differ, the communities differ and also the student bodies and staff.

Descriptive information on the other hand, unlike folklore or anecdotal information, does not imply a causal relationship. Descriptions can consist of qualitative or quantitative information.

To evaluate a program it is necessary to adopt one of the following procedures:

- (1) Measure the inputs, outputs, operations
- (2) Measure the inputs and outputs
- (3) Measure the operations and outputs
- (4) Measure the outputs
- (5) Describe the operations

With the limited time and funds available to an accreditation survey, methods 1, 2 and 3, although desirable are not practical. Any one of these methods would require manpower and time which few accreditation agencies have at their disposal.

Method 4, in which outputs are measured, is definitely the goal which program evaluation attempts to achieve. As discussed earlier, outputs whether they are the overall product of the system or the product of performance, are difficult to determine by present methods. Possibly there will be a means of measuring this output accurately and economically as various data processing programs are developed.

Method 5, by which programs may be evaluated, is accomplished by describing the course content, sequencing, organization and resources both human and physical, as applicable to the education operation. This is the method currently used in accreditation surveys by the Canadian Dental Association. Although this methodology is simple and straightforward it has the disadvantage of not offering explicit comparisons between programs on which decisions may be based. If a course provides a particular student staff ratio, the evaluation of whether this staffing is adequate can only be made if a similar course is offered elsewhere and can be correlated as to effectiveness on the basis of folklore information. Are the staff members in the two institutions equally effective teachers? Do the two institutions demand and enforce the same policies on staff promptness and availability? What level of experience do the staff members possess? Factors of this nature can have an influence on effective teaching, yet description of operations may not disclose these differences. For these reasons, the members of the accreditation team must possess current qualifications and expertise in the area being evaluated. The current level of sophistication in dental education requires specialists

from clinical and preclinical instruction to be on the accreditation team.

PRODUCT RELATED to QUALITY of HEALTH CARE DELIVERY

For an accreditation survey to examine the product, obviously presents many difficulties. Unless graduates are submitted to an external examination such as a State Board examination in the United States, or the National Dental Examining Board examinations in Canada, it would be difficult to perceive how accreditation could measure the product with any reliability or validity.

At the same time, it has been this author's observation that, although lacking in experience, the student in his graduating year exhibits a high quality of health care delivery which for many is rarely attained again. Product of performance after graduation may, therefore, be a function of ethics rather than training. Possibly another factor may be that the close supervision in a teaching institution does not impart a real-life practice environment. There is a good argument for educators allowing final year students, especially in second term, an opportunity to operate with less stringent supervision. Even in a complicated skill such as flying, a student is allowed to "go solo" before licensure. Although there may be some hazards to this approach, the clinical staff would be able to assess more realistically the product of performance which could be anticipated after graduation.

The aforementioned paragraph raises the question as to whether product assessment has any useful place in the accreditation process. As long as a survey can determine that an institution is providing the facilities, staff and instructional program, which will allow the development of the observed skills, this author believes that the examination for accreditation has served its purpose. This writer is also of the opinion that the present method of observing and reporting used by the Canadian Dental Association accreditation visit meets the above stated objective. This method addresses a description of operations.

CONCLUSIONS

In summary, this paper has attempted to illustrate that preclinical and clinical programs should be surveyed with equal emphasis as are didactic courses during accreditation. However, to examine product in such a survey has many difficulties. Some of these difficulties in observing, evaluating and reporting about product are due to the following:

- (1) The accreditation team has constraints of time and personnel.
- (2) Dental clinical and preclinical courses are numerous and draw on the expertise of many specialties. It would be impossible to choose team members who could address all areas competently.

Continued on next page

- (3) Dental procedures are subject to complex observer variability.
- (4) A teaching institution will always have excellent, acceptable and even some unacceptable products of performance. Who can better decide that the overall product is acceptable or unacceptable other than the staff.
- (5) Product of performance after graduation is probably more a function of ethics than training.

Students in their graduating year should be allowed to demonstrate their skills in a less supervised clinical setting. In addition to the documentation and site visit during a survey, a possible consideration which may also have merit is to have the dental faculties carry out a self-assessment. This process is an internal evaluation and often can be more in depth and to a greater extent be devoted to the observation of product.

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REFERENCES

1. Chatwin, J.V.P., Quality assurance. *Canadian Dental Association Journal*, 48(5): 283, 1982.
2. Santangelo, M.N., The dental accrediting process. *J. Dent. Education*, 45(8):513-521, 1981.
3. Odgers, R.F., Introduction to health professions. Wenberg, B.G. (ed) St. Louis, Mosby, 1972.
4. Boyd, W.L., Trends in accreditation and education. *J. Dent. Education*, 43:86-91, 1979.
5. Astin, A.W., and Panos, R.J., The evaluation of educational programs in Thorndyke's Educational Measurement. 2nd. ed., *Washington American Council on Education*, 1971.
6. Sinkford, J., Relationship between private practitioners and present and future dental programs — the academic role. *Q. Natl. Dent. Assoc.* 34:93-98, 1976.
7. Irby, D.M. and Morgan, M.K., Evaluating clinical competence in the health professions. St. Louis, Mosby, 1978.
8. Lange, B.M., et al. The impact of a curriculum change on student attitude and ultimate professional behavior. *J. Dent. Educ.* 43:594-598, 1979.
9. Patridge, I. and Mast A., Dental clinical evaluation: a review of the research. *J. Dent. Educ.* 42:300-385, 1978.
10. Forehand, L.S., et al. Student self-evaluation in preclinical restorative dentistry. *J. Dent. Educ.* 46:221-226, 1982.
11. Brown, W.E., Ginley, T.J. and Santangelo, M.V., Dental education in the United States, 1976, Chicago, *Council on Dental Education of the American Dental Association*, 1977.
12. Gronlund, N.E., Measurement and evaluation in teaching, 3rd. ed. New York.
13. Lilley, J.D., et al. Reliability of practical tests in operative dentistry. *Brit. Dent. J.*, 125:194-197, 1968.
14. Hinkelman, K.W., and Long, N.K., Method for decreasing subjective evaluation in preclinical restorative dentistry. *J. Dent. Educ.*, 37:13-18, 1973.
15. Mackenzie, R.S., Factors essential to evaluation of clinical performance. *J. Dent. Educ.*, 38:214-223, 1974.
16. Mackenzie, R.S., Defining clinical competence in terms of quality, quantity and need for performance criteria. *J. Dent. Educ.*, 37:37-44, 1973.
17. Ryge, G. and M. Snyder, Evaluating the clinical quality of restorations. *J. Am. Dent. Assoc.*, 87:369-377, 1973.
18. Houpt, M.I. and Kress, G., Accuracy of measurement of clinical performance in dentistry. *J. Dent. Educ.* 37: 34-46, 1973.
19. Sisty, N.L. et al., Evaluation of student performance in the four year study of expanded functions for dental hygienists at the University of Iowa. *J. Amer. Dent. Assoc.*, 97:613-627, 1978.
20. Mackenzie, R.S., et al. Analysis of disagreement in the evaluation of clinical products. *J. Dent. Educ.* 46: 1982.
21. Prisig, R.M., Zen and the art of Motorcycle maintenance — an inquiry into values. Toronto, *Bantam Books*, 1974.
22. Kapur, K.K. et al., General practice residency program accreditation — a shared responsibility. *J. Hosp. Dent. Pract.*, 13: 124-8, 1979.

APPENDIX I

AMERICAN DENTAL ASSOCIATION Commission on Dental Accreditation

PREDOCTORAL DENTAL EDUCATION SITE VISIT EVALUATION ACTIVITY OBSERVATION AND EVALUATION OF PATIENT TREATMENT

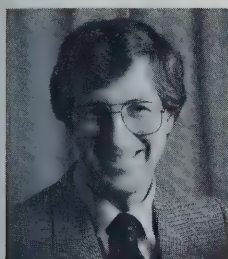
As part of the Commission on Dental Accreditation's evaluation visits, efforts are made to review a representative sample of clinical patients whose treatment was completed by graduating students. Such patients are to be selected by the site visit team and not by the faculty of the dental school. This review procedure is limited to those patients who have been treated by predoctoral students and does not include patients who have been treated by postdoctoral students.

Patients will be selected by members of the site team during the first day of the visit. In order to expedite this selection process, the Director of Clinics should arrange to make available an area equipped with two x-ray view boxes where charts of such patients can be reviewed. The institution should further be prepared by having available access to the charts of all patients whose complete treatment was rendered by students who have or had, if graduated, outstanding clinical ability, average clinical ability and poorest clinical ability. In each of these three categories, five students are to be selected. Also, the treatment should have been completed during the preceding 12 months. From these charts, the members of the visiting committee will select approximately 20 to 30 charts of patients on whom treatment in the various clinical disciplines has been provided.

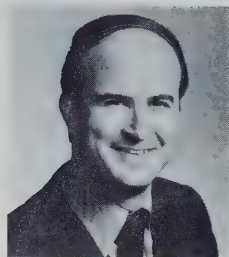
From the patients selected, the institution will be asked to contact and assure that an adequate sample of patients can come to the school for examination and evaluation. Also, during the first day of the visit, the time for this review will be worked out to be convenient for both the evaluation team, as well as the institution.

Position Paper

Clinical research funding



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This paper was read before the annual meeting of the research committee of the Association of Faculties of Dentistry of Canada, held in Cincinatti, Ohio, in March of 1983.

It was subsequently presented to the House of Delegates session of the same meeting.

Clinical research funding in Canada is notable for the risk of divergent perspectives frequently elicited. Both scientific and territorial perspectives are involved. The major problem is one of semantics. Investigations of a pure basic science nature are readily identifiable, as are clinical trials involving patients. Considerable scope exists between these separate or mutual activities, and within an undefined range they become integrated. Thus a definition of clinical research is subject to a limited or a broad interpretation. Clarification is necessary to determine clinical research activity, and to assess its actual funding level, either already in existence or perceived to be required.

The basic science investigator tends to be invisible in the clinical environment. Herein lies a major distinction between the basic scientist and the clinical academic. The latter retains a significant commitment to clinical program development and teaching, and is visibly identified as being clinically proficient. In addition, the clinician maintains and enhances clinical knowledge and skills by exercising practice and consulting privileges. These observations are supported by the current status of obligations designated by faculty administration for individuals with clinical appointments.

A PERSPECTIVE of CLINICAL RESEARCH

It is a reasonable assumption that clinical research requires participation and/or direction by a clinician-investigator. This individual would be expected customarily to be a qualified clinical specialist with research training. Clinical research activity generally cannot be anticipated to be routinely conducted by individuals who lack a clinical background. Therefore, the expectation of such an individual is more appropriately one of support and collaboration, rather than primary direction of applied projects. If these premises are accepted, one concludes that clinical research activity is dependent to a large

extent, on clinical faculty.

The customary level of research qualification of the clinician-investigator historically has been the Master of Science degree. Such an individual is expected to be capable of independent research. Of equal importance is the ability to communicate effectively with the basic scientist for collaborative investigations. There is a trend in some institutions to promote the Ph.D. qualification as the minimum standard for clinical research activity. We believe that such an approach produces individuals who risk exclusive integration with basic science investigations, and become an extension of that group. As a consequence, the more applied aspects of dental research continue under-emphasized. An enormous gap exists between research currently in progress in our dental faculties, and investigations of a more applied nature with prospects of short-term integration into clinical practice. Increased activity is essential in projects with reasonable potential for direct application to clinical practice. Only with this direction can clinical dentistry evolve from the "apprenticeship" perspective which continues to prevail with too many senior administrators. Concurrently, services predicated on unscientific and empirical bases can be reassessed.

ANALYSIS of the EXISTING STATUS

Historically, the commitments of clinical faculty have been directed to the undergraduate curriculum and clinical supervision of students. Research projects were conducted after hours, by forfeiting consulting privileges, or during the summer months. Under these circumstances, it is not surprising that the research and publication standard of clinical faculty has been relatively inadequate in proportion to the percentage of full-time faculty. Those clinicians who have established research reputations invariably have done so in spite of, rather than through the support of faculty administrations.

Continued on next page

As a result of the limited opportunity for clinical faculty to be active in research due to assignments to the clinical teaching program, Departments of Oral Biology have been developed to provide a research profile for dentistry. Unfortunately, this approach may well have impeded the advancement of clinical research. This system tends to further isolate clinical faculty, since only those with basic science responsibilities have expectations of significant research performance. From the clinician's perspective this is now an established reality.

Current data obtained by the Association of Faculties of Dentistry of Canada tabulates the total amount of grants received. The percentage received for basic science and clinical research investigations is not delineated. An admittedly arbitrary assessment of funding indicates that the majority of grants, and particularly those of greatest financial magnitude and duration, have been successful for investigations with basic science emphasis. This may be due to several reasons. In applying for grants, basic science faculty can demonstrate that significant time is allotted and suitable facilities exist for research. Considerable capital expenditures from university budgets have been provided for the initial development of basic science laboratory facilities, for space renovations, and for equipment purchase. For several faculties, this has been a continuing source (or the sole source) of funds for operation of Departments of Oral Biology. Research technicians have been funded from general operating revenues of the faculty. As a result, Oral Biology has been developed by faculty administrations as the area responsible for research.

Clinical faculty, with rare exceptions, have received no such support. No research space is assigned. Inadequate time is made available in the clinician's schedule for research since this would reduce the amount of student contact time for clinical teachers, which is all too frequently regarded as the *raison d'être* for being a clinical academic.

Faculties of Dentistry have neglected to provide the favorable environment for clinicians to be significantly involved in research. Unless and until that commitment is obtained, the scholarly performance of clinicians will remain restricted.

A consequence of the administrative policies of our faculties is that the voice of dental research in Canada lacks representation by clinicians. Assessment panels of the major funding agencies are populated by basic scientists, to the almost complete exclusion of clinicians.

The majority of awards by two major funding agencies, the Medical Research Council of Canada and the Alberta Heritage Foundation for Medical Research have been to individuals with basic science appointments. It is evident that this problem exists not only in dentistry but also in medicine. Clinical research activity in the health science disciplines is simply inadequate and unacceptable.

RESOLUTION of the DILEMMA

Clinical research requires the same commitment to Excellence that was previously directed to the Oral Biology area in order to develop. Administrations of Faculties of Dentistry, including the Dean and Department Chairmen, must adopt as a priority policy the initiation and enhancement of clinical research activity within their institutions. This responsibility entails assuring adequate time in the weekly schedule for an organized approach to research. Research space must be allocated to clinicians, with appropriate budgets for the purchase of the necessary scientific equipment. An initial period of funding for technician salaries until they can be supported by research grants should be considered.

The potential to participate in research is a critical factor in attracting clinical faculty. These individuals can be retained only if those expectations are fulfilled. Several competent clinical academics turned to private practice for this very reason, although this is emotionally rejected by many administrators. In fact, an informal survey indicates that the primary influence for clinician-investigators being attracted to another institution is the provision of research time and facilities. Unless and until Deans and Department Chairmen recognize this reality, they will continue to witness an exodus of their faculty to institutions assuring that opportunity.

Funding of clinical research apparently is not essentially a financial dilemma. The mechanism for and desire to support well-designed projects exists, according to officers of the major funding agencies. If these assurances are accepted, the problem undoubtedly is one of administrative attitudes which have failed to utilize existing qualified clinician-investigators effectively within the academic community. The challenge is to recognize and rectify this inequity immediately.

THE FUTURE

Faculties of Dentistry must be prepared to recognize and provide support for clinical teachers to have major research opportunities. An adequate critical mass of qualified clinician-investigators currently does exist nationally. Those faculties which have failed to attract capable and motivated clinicians regarding scholarly activity may well have to reassess their approach if they are to justify their existence and survival. The need is to provide the existing clinician-investigators a research environment, not to attempt the creation of another category of individuals as recommended by the Salter Report. Clinical faculty deserve equal opportunity to participate in the academic community of the university in research and scholarly activity. In fact, it is a prime obligation of administration to ensure such an environment. To do otherwise is to concede that faculties of dentistry do not belong in a university, and their prospects of survival in

that academic environment are suspect. Unless a policy of supporting our existing personnel is actively pursued, tenure and promotion will be denied to junior clinical faculty by an increasing number of university administrations, with appalling results. Alternatively, the direction of the clinical teaching program may evolve to part-time clinical faculty. It is questionable if university administrations would favor continued existence of Faculties of Dentistry under those conditions, nor are they likely to be sympathetic to one which perceives full-time faculty restricting themselves to a self-determined research role. This is contradictory to the universal concept of the objectives of a university to be teaching, research, and service to the community.

CONCLUSION

The purpose of this paper is to provoke discussion. The frustration facing our well-qualified clinicians in obtaining the opportunity and support for research activity is potentially explosive. It is impossible to categorically state that funds to support clinical research are inadequate. The benefits to individual faculty, to the scientific community of the university, and for the improved relationship of dental schools with the practising profession, merit immediate action in this underdeveloped activity.

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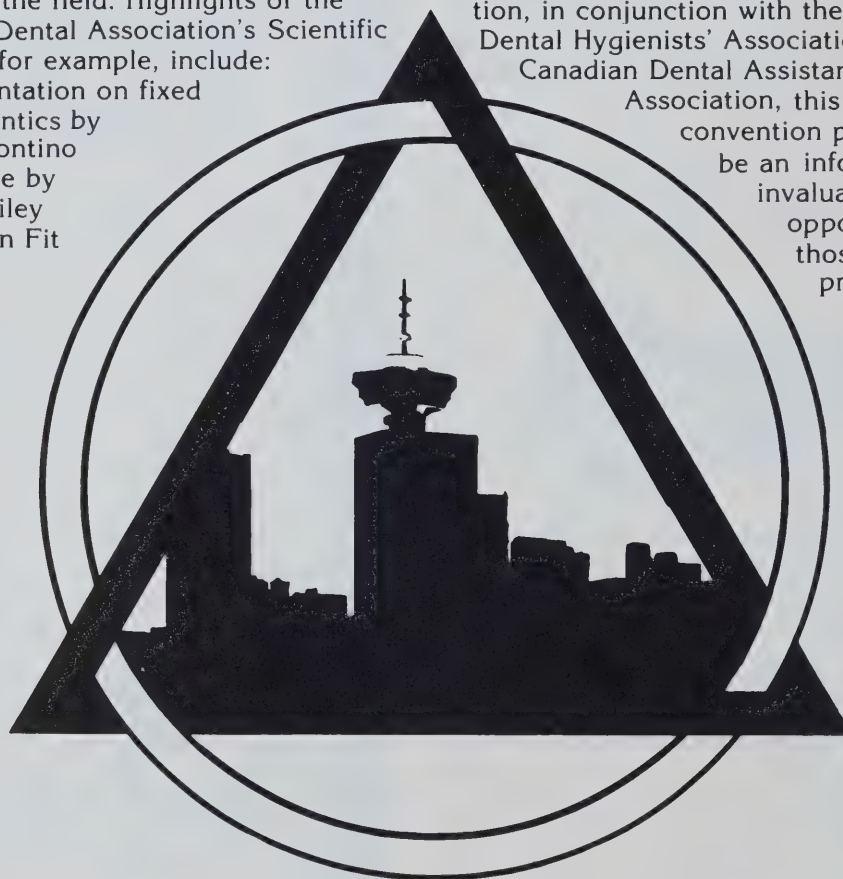
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**A FINAL
REMINDER**

The undergraduate teaching program — does it change personality?

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étudiants à partir de leur admission dans une école jusqu'à l'obtention de leur diplôme. Durant les études, huit des seize facteurs de personnalité changent de façon marquée. Cependant, il faudra pousser davantage les recherches pour voir si ces changements sont réels ou éphémères, ou s'ils peuvent être le résultat de facteurs liés à l'enseignement et au milieu dans lequel évoluent les étudiants dentaires.

ABSTRACT

In this study, student preadmission personality profiles were contrasted with personality profiles of the same students just prior to graduation. This was accomplished through the re-administration of the 16 Personality Factor test at four Canadian dental faculties. Comparison with the norm population and change over the period of undergraduate dental curriculum were investigated. Dental students were different from the norm on admission to and graduation from dental school. Eight of the 16 personality traits showed a statistically significant change over that period. Further research is necessary to confirm if these changes are real or reversible or perhaps a result of factors inherent in the teaching and environment of the undergraduate dental program.

SOMMAIRE

Dans cette étude, on compare les tests projectifs auxquels on a soumis des étudiants avant qu'ils aient été admis aux études dentaires et avant qu'ils aient reçu leur diplôme. Ainsi, on a demandé à des étudiants de quatre écoles dentaires de se soumettre une deuxième fois au Test des 16 facteurs de personnalité. On les a ensuite comparés à un groupe d'étudiants ordinaires et relevé les changements survenus durant la période des études universitaires. Les étudiants dentaires se distinguent des autres

Selecting potential dental students from a pool of applicants is a problem that faces every dental admissions committee annually. Responsibility for making career decisions is one that is not taken lightly, and there are several factors which most committees take into consideration in the selection process. One is a battery of tests, collectively called the Dental Admissions Test (DAT), which all applicants to dental school must write. The test has two components — academic and psychomotor. The academic portion consists of tests in science, biology, organic and inorganic chemistry as well as reading comprehension, while the psychomotor portion is a paper-and-pencil perception test involving two- and three-dimension perception and, in addition, a "hands on" chalk carving test. The DAT results, along with traditional measures of academic achievement — prerequisite and overall entering grades, letters of reference and a personal statement, comprise the majority of information upon which admissions decisions have been made.^{1,2} This information encompasses the cognitive and psychomotor domains and both are significant predictors of success in the early years of the undergraduate curriculum.^{1,3-10}

Since the applicants' academic qualifications are generally high, those factors which will ultimately determine their success or failure will not be based on intellectual ability but rather on non-achievement components of clinical practice.¹¹ However, little attempt has been made to gather reliable information representative of that area. In the past, standardized psychological tests such as the Opinion, Attitude and Interest Survey, the Allport-

Continued on next page

Vernon-Lindsay Study of Values, the Edward Personal Preference Schedule, the Strong Vocational Interest Blank, and the California Psychological Inventory have been used. However, the results have been disappointing.¹²⁻¹⁴ Recently, several studies have been undertaken, investigating changes in dental students' attitudes and values as well as personality traits.¹⁵⁻²⁰ Unfortunately, because different tests and scales have been used, comparison and generalization across studies are difficult and are not reliable.

With increased attention being directed toward the gathering of non-grade data on dental school applicants, the Canadian Dental Association's DAT program responded by developing and assisting faculties with the implementation of a structured interview, as well as incorporating the 16 Personality Factor test (16PF) into its national testing program.^{21, 22} Data generated through the administration of the 16 PF are being used as a research base at present and it is hoped that this measure may become a new predictor of success, or lack of success, in the clinical years. As a starting point, a pilot study was initiated, comparing preadmission and pregraduation profiles of dental studies, the results of which showed a dramatic change over the years.²³ The purpose of this study was to expand the sample size in order that more sound conclusions could be drawn.

METHOD

At the time of national testing, all applicants wrote Form A or the 16PF. Four Canadian dental faculties participated (The University of British Columbia, University of Manitoba, University of Western Ontario, and Dalhousie University) which provided a preadmission sample of 131 applicants. The resulting sten scores were calculated to define a personality profile according to the 16 traits of normal personality which were surveyed by the test. Sten scores are distributed over 10 equal interval standard scores points from one through ten, with the population mean fixed at sten 5.5.²⁴ The norm population for the preadmission group was the combined male/female college population centred upon and corrected to 20 years.

Later, just prior to graduation, 143 senior students from the four faculties were retested using the same standardized format. The analysis of this data involved both the combined male/female college and adult norm. The adult norm group was included because a minimum of five years would have elapsed since the first time of writing, as often applicants are not accepted on their first application to the faculty. On both occasions, the students were apprised that the data would be used for research purposes only, so there is no reason to believe that the test was sabotaged.

Data analysis involved a t-test to determine any significant difference between the dental students and the reference group. The null hypothesis of no difference between

preadmission and pregraduation scores was tested using a paired t-test ($n=121$) with the rejection level set at $p = 0.05$.

RESULTS

Preadmission and pregraduation profiles are illustrated in **Figure 1**. Applicants admitted to the four dental faculties in 1977 showed a slight deviation from the average and were significantly different from the college population in half of the 16 traits. They showed a higher ego strength and were more conscientious, venturesome, toughminded, trusting, confident, controlled and relaxed. At graduation, their group profile showed the same differences when compared to the college norm. However, senior students when compared with the general adult population were significantly more intelligent, conscientious, toughminded, forthright and confident. These sten scores would be considered slightly deviant from the average.

The broad pattern of their career development profile on graduation shows that, although reserved, there is a desire to help others and a preference for work that requires precision and dependability. Also, they are found to be average in the areas of extroversion, independence, stress, need for structural situations, and preference for the leadership role. Graduating students were above average in being toughminded and showed potential to profit from formal academic training as well as from on-the-job experience.

Results of the paired t-test showed a significant change over the lapsed time in eight of the factors (**Table I**). Compared to preadmission, students upon graduation were more intelligent and more self-sufficient. In addition, they showed lower ego strength and became less trusting and venturesome, less controlled and confident and less relaxed.

DISCUSSION

Students entering dental school were different from their college classmates. They possessed many of the characteristics that would be considered desirable in a student and later in a practising health professional. At admission, the student was conscientious and, in so being, also showed responsibility, self-controlled behaviour, regard for others, and a desire to persist and do his best. Consideration for others, self-control, persistence, effective leadership, and problem solving ability are characteristic of those who are controlled. This student is self-assured, secure, can sometimes be expedient, but is basically composed and unfrustrated. Although toughminded individuals can be cynical, this particular characteristic reinforces responsibility, is reflective of maturity — on which this group scored high — and shows a "masculine", practical, and realistic temperament. All these characteristics appear to complement one another and

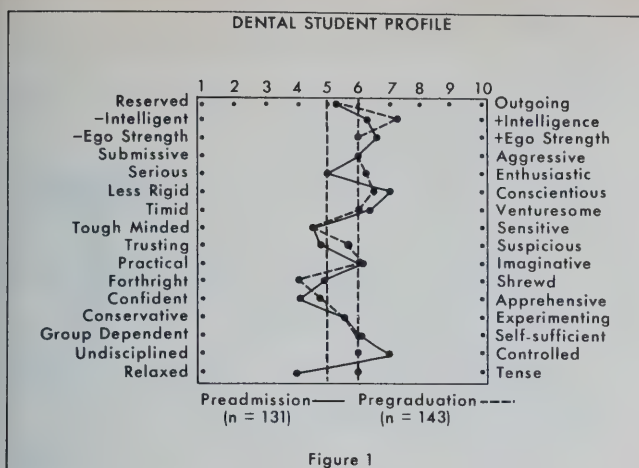


Fig. 1 — Preadmission and pregraduation profiles.

Table I — Profile change: preadmission vs. pregraduation (n = 121)

Factor	Significance
+ intelligence	.002
- ego strength	.002
- venturesome	.000
- trusting	.003
- confident	.001
+ self-sufficient	.044
- controlled	.039
- relaxed	.001

would be considered by dental educators as desirable in a dental student. In addition, these attributes would help ensure success in academic studies.

The same trait differences were evident at the time of graduation when the profile was compared to the college group. Now older, the graduating student remained strongly confident, conscientious, and tough-minded. When compared to the adult population, however, he was significantly more forthright and inclined to conceptual thinking. These traits could be interpreted as favourable or unfavourable, depending upon the environment in which the graduate is expecting to function (i.e., private practice, research, teaching, public health, etc.).

The graduate was "bright" or possessed a high general mental capacity. On the other hand, he showed a tendency to almost naive emotional genuineness, spontaneous outspokenness, and complete directness. Certainly, to be bright is desirable, and those who are less sophisticated or shrewd exhibit a natural warmth and a liking for people. With the extensive interaction with all kinds of people in the practice of dentistry plus the problem-solving nature of the profession, the characteristics exhibited by the graduating students would appear highly favourable and conducive to success, even though there is evidence that

those who are more shrewd are generally good clinical diagnosticians.²⁴

Overall, being bright, conscientious, realistic, forthright and confident should provide a reasonable balance for dealing with people in a highly responsible and exacting profession. Compared with their medical counterparts — general practice physicians, they are similarly more intelligent and more self-sufficient than the general population. Other than being more submissive and controlled, physicians are fairly close to the norm on all other factors.²⁴ Since dentistry involves both academic and on-the-job training, this student group is very well suited to take advantage of this combined learning situation for present and future career development.

Following four years of undergraduate dental education, this group had changed significantly in eight of the 16 traits. The graduating student was more intelligent and more self-sufficient than when he entered dental school. He had lost some ego-strength or was less stable emotionally as well as being less venturesome. He was less trusting and confident and, in addition, less controlled and relaxed. In all but the measures of intelligence and self-sufficiency, there was a tendency toward the population mean.

This expanded group did not show the dramatic shift "to the left" that was seen in the pilot study.²³ The early findings could be a result of small sample size or may be specific to that institution's curriculum and environment. The increase in independence or self-sufficiency is consistent with the findings of Vinton¹⁸ and Loupe et al.¹⁹ but contrary to those of Rosenberg.¹⁵ All studies have employed different tests; some involving attitudes and values, others personality traits, therefore making reliable comparative interpretation virtually impossible.

Is the observed change reflective of learning, maturation, or something as a consequence of the undergraduate teaching program? Perhaps, through attention to clinical problem solving, the individual has grown in his ability in conceptual thinking and has learned to become more self-sufficient. Both are necessary components to the independent practice of dentistry. Has the very nature of dental education, i.e., constant evaluation and criticism in an effort to achieve excellence, caused the graduates to become more suspicious, more timid, more apprehensive and more tense? It might be possible. Educators often remark on the change they observe from first year through to graduation and that each class seems to have its own "personality".

It is entirely possible that the changes may be, on the other hand, short-lived and reversible. Indeed, traits of being forthright, trusting and controlled are more likely than others to fluctuate with the psychological state.²⁴ Perhaps, the graduate will revert to his preadmission profile once he is away from school and involved in dental practice. Since applicants to dentistry might be considered "mature" due to their age and experience, these instabilities could reflect learning which may or may not be a result

Continued on next page

of the dental educational environment. However, at present, it is not definite whether the change is real. McCreary and Gershen²⁰ in their study, using the Comrey Personality Scales, found that graduates 26 months after graduation had increased in conformity and orderliness. Before any firm conclusions can be drawn with respect to this group, further investigation should be undertaken to redefine a personality profile following a period of time in practice.

CONCLUSION

Successful dental applicants and their college classmates are quite different, as defined by the 16 PF test. Following undergraduate dental education, they are significantly different from the general adult population. In comparing their personality profiles at preadmission and pregraduation, the students showed a statistically significant change in eight of the 16 traits of normal personality. Therefore, the null hypothesis of no difference between the profiles was rejected. However, it is not clear if the apparent change is the result of the learning and teaching environment of the dental faculty or is, indeed, real, reversible, or due to maturity. Therefore, further investigation is warranted in order to establish if the observed personality change is permanent or circumstantial.

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REFERENCES

1. Kreit, L.H. and McDonald, R.E. Preprofessional grades and the DAT as predictors of student performance in dental school. *J Dent Educ* 32:452, 1968.
2. Ambrose, E. and Teteruck, L. Admissions procedure survey: Canadian dental schools 1977 — 1978. *J Canad Dent Assoc* 45:410, 1979.
3. Manhold, J.H. and Manhold, B.S. Final report of an 8 year study of the efficacy of the dental aptitude test in predicting 4 year performance in a new dental school. *J Dent Educ* 29:41, 1965.
4. Phipps, G.T., Fishman, F. and Scott, R.H. Prediction of success in dental school. *J Dent Educ* 32:161, 1968.
5. Dworkin, S.F. Dental aptitude test as performance predictor over four years of dental school: analysis and interpretations *J Dent Educ* 34:28, 1970.
6. Fernandez-Pabon, J.J. Prediction of success in dental school on the basis of dental aptitude test scores and other variables. *J Dent Educ* 33:261, 1968.
7. Wood, W.W. Grade averages and DAT scores as predictors of performance in dental school. *J Dent Educ* 43:630, 1979.
8. Boyd, M.A., Teteruck, W.R. and Thompson, G.W. Interpretation and use of the dental admission and aptitude tests. *J Dent Educ* 44:275, 1980.
9. American Dental Association. Division of Educational Measurements. Dental Admissions Testing Program

Reports. *Correlation study DAT and GPA vs. Grades, 1974-75 to 1979-80*. Chicago, American Dental Association.

10. Kress, G.C. and Dogon, I.L. A correlation study of preadmission predictor variables and dental school performance. *J Dent Educ* 45:207, 1981.
11. Caughey, J.L. Non-intellectual components of medical education. *J Med Educ* 42:619, 1967.
12. Chen, M.K., Podshadley, D.W. and Shrock, J.G. A factorial study of some psychological, vocational interest, and mental ability variables as predictors of success in dental school. *J Appl Psychol* 51:236, 1967.
13. Fusillo, A.E. and Metz, A.S. Social science research on the dental student. In: *Social Sciences and Dentistry: A Critical Bibliography*. N.D. Richards, L.K. Cohen and A. Sijthoff (eds). The Hague, Netherlands, 1971.
14. Kalis, B.D., Tocchini, J.J. and Thomassen, P.R. Correlation study between personality tests and dental student performance, *JADA* 64:656, 1962.
15. Rosenberg, J.L. Attitude change in dental and medical students during professional education. *J Dent Educ* 29:399, 1965.
16. Di Marco, N. and Pearlmutter, K. Impact of class environment on Machiavellianism and leadership, interpersonal need, and life style orientation of dental students. *J Dent Educ* 40:340, 1976.
17. Gershen, J.A. and McCreary, C.P. Comparing personality traits of male and female dental students: a study of two freshman classes. *J Dent Educ* 41:618, 1977.
18. Vinton, J. A four-year longitudinal study of the impact of learning structure on dental student life styles. *J Dent Educ* 42:251, 1978.
19. Loupe, M.J., Meskin, L.H. and Mast, T.A. Changes in the values of dental students and dentists over a ten-year period. *J Dent Educ* 43:170, 1979.
20. McCreary, C.P. and Gershen, J.A. Changes in the personality among male and female dental graduates. *J Dent Educ* 46:279, 1982.
21. Graham, J.W. and Boyd, M.A. A structured interview for dental school admissions. *J Dent Educ* 45:78, 1982.
22. Boyd, M.A., Graham, J.W. and Teteruck, W.R. Personality testing for dental admissions. *J Canad Dent Assoc* 45:405, 1979.
23. Boyd, M.A. Change in dental student profiles: preadmission to pregraduation. A pilot study. *J Canad Dent Assoc* 47:587, 1981.
24. Handbook for the 16PF, Institute for Personality and Ability Testing. Champaign, Illinois, 1974.

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The acid-etch bridge subsequent to the extraction of a traumatized Maxillary Permanent Incisor

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Borden, Ont.

Calvin Torneck, DDS, MS, FRCD(C)
Toronto

ABSTRACT

A permanent central incisor was extracted due to external root resorption and chronic fistula formation caused by trauma. An acid-etch "Maryland" bridge was successfully used to replace the missing tooth.

The loss of a permanent anterior tooth is a very traumatic experience for a child or adolescent. In the last few years, the recognition of the acid-etch bridge as a transitional treatment modality for replacing these lost teeth until such a time that a permanent fixed prosthesis can be made, has radically improved the outlook for these patients.

LITERATURE REVIEW

In the early 1970's, acrylic teeth or a patient's natural tooth/teeth were used as pontics combined with an acid-etch technique, in an attempt to replace the crude acrylic removable partial denture or "flipper"^{1,2} used in previous years. In 1973, perforated retainers were advocated by Rochette³ for periodontal splinting of anterior teeth. Stolpa⁴ modified this technique, and made a small anterior fixed partial denture indirectly on a stone case and then acid-etched the prosthesis into place.

All of these early prostheses used acrylic resins bonded

SOMMAIRE

Une incisive centrale permanente est extraite à cause d'une résorption radiculaire externe et de la formation d'une fistule chronique due à un trauma. Pour remplacer la dent, on a utilisé avec succès un pont "Maryland" gravé à l'acide.

to metal. Ultimately, they proved clinically unsatisfactory because they had a tendency to wear and stain. Later, the acid-etched bridges were modified to accommodate pontics made of porcelain fused to metal and veneers which were applied to perforated metal castings.⁵⁻⁸

According to Livaditis and Thomas,⁹ the perforated metal design had distinct disadvantages. The exposed resin was subject to abrasion and there was the danger of leakage of fluids between the metal and resin. In addition, retention of the bridge was limited just to the region around the perforations, and not throughout the framework. This concentrated the stresses of occlusion to a few narrow protrusions of resin which could in concert with the leakage lead to failure of the resin to adhere to the basic framework. Later, Livaditis and Thompson⁹ used nitric acid on a non-noble, base metal or nickel-chrome alloy with porcelain fused to the metal to create the "Maryland" Bridge, which allowed fusion of the bridge with the acid-etched surface of the tooth. They found this

Continued on next page



Fig. 1. Periapical radiograph of maxillary right central revealing the malformed root.



Fig. 2. Intra-oral photograph showing the hypoplastic appearance of the right central and the presence of a small labial draining fistula.



Fig. 3. Periapical radiograph demonstrating irregular root formation and absence of a radiolucency around the apex.

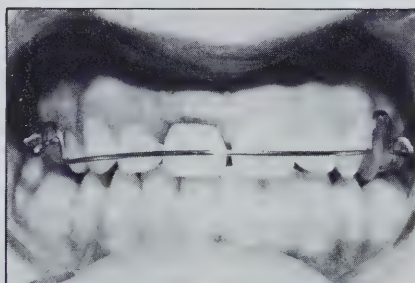


Fig. 4. Intra-oral photograph showing placement of a removable maxillary prosthesis.



Fig. 5. Intra-oral photograph of the acid-etch bridge in place.

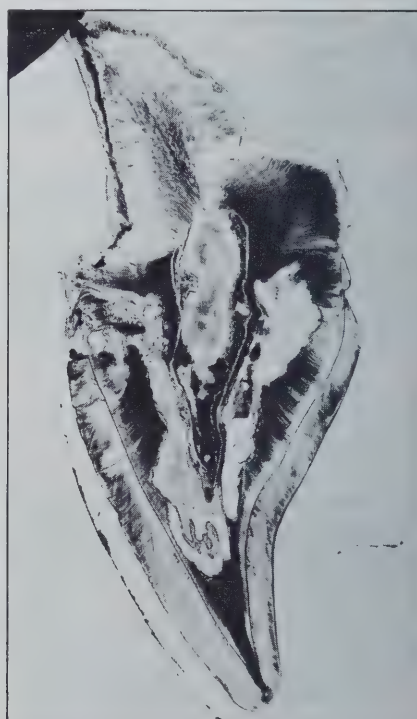


Fig. 6. Ground section through crown and root (orig. mag. x 6).

arrangement yielded bond strengths well within the limits required to withstand the forces of mastication.

The advantages of this type of prosthesis are: (1) virtually no tooth preparation is required, (2) the margins are supra-gingival, (3) it is more economical than a fixed prosthesis (4) it requires minimum chair time, (5) complete reversibility is a possibility, and (6) there is no trauma to the pulp in young patients.

CASE REPORT

K.B., a 13-year-old caucasian female, was referred to the dental clinic at Canadian Forces Base Borden, to have a maxillary right central extracted and an acid-etch bridge placed. The medical history was non-contributory.

There was a history of intrusive trauma to the maxillary primary incisors at approximately 1½ years of age. No dental treatment was initiated at that time, and the follow-up examinations were uneventful until the maxillary permanent teeth began to erupt.

A periapical radiograph of the maxillary right central at that time revealed malformation of the root (**Fig. 1**). The eruption was delayed and the tooth had to be guided into position orthodontically. There was swelling of the lip about 12 months after orthodontic treatment and a chronic draining fistula appeared on the labial gingiva. The orthodontist referred the child for an endodontic consultation; he was advised that the tooth should be extracted, due to extensive external root resorption, poor endodontic prognosis and impossibility of restoring the crown adequately with a post and core.

Clinically, the crown of the maxillary right central appeared hypoplastic and malformed. The draining fistula was located above the attached gingiva on the labial aspect of the central incisor (**Fig. 2**). Radiographically, there was no evidence of periapical radiolucency (**Fig. 3**), and the root formation appeared to be irregular. Maxillary and mandibular study models were made, and the maxillary right central was extracted under local anaesthesia. A maxillary removable Hawley retainer with a methyl methacrylate tooth replacement was inserted (**Fig. 4**). The plastic incisor was trimmed gingivally to allow healing and proper contouring of the incisor socket to take place. The extracted tooth was assessed histologically. After six weeks impressions, bite registration and a shade were taken for the fabrication of an acid-etch Maryland Bridge.

The maxillary left central and right lateral were etched with 30 per cent phosphoric acid for one minute. A microfil composite material was applied to the etched metal of the bridge, and the bridge was seated into place (**Fig. 5**). The prosthesis was well received by the patient and recall examination three months post-insertion showed it to be intact and functioning well.

HISTOLOGICAL PREPARATION and ASSESSMENT

Subsequent to extraction, the tooth was fixed in 10 per cent buffered formalin. It was then dehydrated in ascending concentrations of alcohol and embedded in epoxy resin (Spurr Warrington, Pa.), from which ground

sections approximately 120 microns in thickness were cut. Sections were examined under a Leitz standard light microscope equipped with an automatic camera.

Gross distortions in the size and shape of the dental root were evident (**Fig. 6**). However, the root was composed of dentine having a relatively normal tubular pattern and covered by normal cellular and acellular cementum (**Fig. 7**). A small irregular pulp space was found in the central portion.

The external anatomy of the tooth crown appeared relatively normal, except for the presence of a small surface perforation in the region of the labial cemento-enamel junction (**Fig. 8**). Some shadows on the labial surface of the enamel were suggestive of a hypocalcification. The coronal dentine displayed extensive resorption in the areas surrounding the pulp space and some hard tissue formation having the appearance of bone was evident at the site of the perforation, along the walls and within the space of the resorption cavity (**Fig. 9**). While there was some communication between the resorption cavity and the pulp horn, the basic outline of the pulp space was identifiable. Reparative dentine formation had occurred along the periphery of the pulp space.

DISCUSSION

The intrusive injury of the primary incisors experienced by the patient at 1½ years of age was the probable cause of damage to the permanent central incisor. At that age, the root of the permanent central was just beginning



Fig. 7. Ground section through root portion of tooth peripheral to region of pulp space (orig. mag. x 25).



Fig. 8. Ground section through crown of tooth at labial aspect of cemento-enamel junction (orig. mag. x 32).



Fig. 9. Ground section through crown of tooth labial and incisal to pulp space (orig. mag. x 32).

to form. External resorption of the crown and necrosis of the pulp were probably responsible for the formation of the fistula. The endodontic prognosis was poor and extraction and prosthetic replacement were considered.

The acid-etch bridge was made of a non-noble nickel-chromium base metal to which the porcelain was fused. Reagent grade 10 per cent sulphuric acid was used in the laboratory to etch the metal to permit bonding of the bridge to the teeth.

A removable Hawley appliance was used initially after extraction to allow the socket to heal and to prevent staining of the bonding resin with blood. When placing the bridge, a dry field free of saliva and blood must be maintained to establish proper adhesion of the resin to the metal and tooth surface.

The acid-etch Maryland Bridge is an effective treatment modality to replace missing permanent incisor teeth. The option remains as to whether the prosthesis is to be transitory and replaced by a fixed prosthesis at a later date, or if it is to be regarded as a permanent fixture.

More research is required to determine the longevity of the Maryland prosthesis, and the ideal composite that should be used to bind the bridge to the dentition.

This article reflects the views of the authors only and not necessarily those of the Canadian Forces Dental Services or the Canadian Armed Forces.

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REFERENCES

1. Ibsen, R.L. Fixed prosthetics with a natural crown pontic using an adhesive composite — case history. *S Calif State Dent Assoc J* 41:100, 1973.
2. Portnoy, L.L. Constructing a composite pontic in a single visit. *Dent Surv* 49:20, 1973.
3. Rochette, H.L. Attachment of a splint to enamel of lower anterior teeth. *J Prosth Dent* 30:418, 1973.
4. Stolpa, J.B. An adhesive technique for small anterior fixed partial dentures. *J Prosth Dent* 34:513, 1975.
5. Howe, D.F. and Denehy, G.E. Anterior fixed partial dentures utilizing the acid etch techniques and a cast metal framework. *J Prosth Dent* 37:28, 1977.
6. Kuhlke, K.L. and Drennon, D.G. An alternative to the single tooth removable partial denture. *J Int Den Child* 8:11, 1977.
7. Chalkley, Y. Clinical use of anterior laminates, construction and placement. *J Am Dent Assoc* 101:485, 1980.
8. Denehy, G.E. Cast anterior bridge utilizing composite resin. *J Ped Dent* 4:44, 1982.
9. Livaditis, G.J. and Thompson, V.P. Etched castings: an improved retentive mechanism for resin bonded retainers. *J Prosth Dent* 47:52, 1982.

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The efficacy of gum chewing and xylitol to reduce oral glucose clearance time

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Quebec, P.Q.

ABSTRACT

Six teenagers were asked to perform weekly one of the following treatments: chewing for three minutes on a rubber band, or on four different chewing gums with respect to the sweetener, toothbrushing, or no treatment. The oral fluids were collected and the flow rate, pH, and buffer capacity were determined. The time necessary to eliminate all detectable glucose (oral glucose clearance time) which was introduced as a mouth rinse before implementation of the treatments was measured. In a second study the oral glucose clearance time was determined in 40 young adults following toothbrushing, xylitol gum chewing or no treatment. Results showed that the resting oral glucose clearance time was significantly reduced by xylitol gum chewing (49 per cent reduction; $P < 0.001$) and by toothbrushing (41 percent reduction, $P < 0.001$).

It is widely accepted that the initiation of the carious process is caused by acids produced at the plaque-enamel interface. Acid production itself results from the activity of cariogenic bacteria metabolizing the fermentable carbohydrates of the diet made locally available as foods migrate through the oral cavity. The evidence which shows that fermentable carbohydrates, and sugars in particular, are essential in the etiology of dental caries is unequivocal.¹ The results of epidemiological investigations and experiments carried out in humans and animals clearly show that the frequency of consumption of sugared foods and their continuous presence in the mouth after eating are related to the cause of caries.²

In view of this etiological background, the prevention of dental caries has traditionally relied on the frequent removal of plaque by mechanical means and the modification of dietary habits by urging people to eat less sugared foods. Dental practitioners and dental health leaflets usually recommend that teeth should be brushed immediately

SOMMAIRE

On a demandé à six adolescents de tenter chaque semaine les expériences suivantes: ne rien faire du tout, se brosser les dents, ou mâcher pendant trois minutes une bande élastique en caoutchouc ou quatre sortes de gomme à mâcher différentes quant à leur teneur en sucre. On a recueilli leur salive, tenant compte de la quantité, du facteur pH et de la propreté des dents. On a aussi mesuré le temps requis pour éliminer tout le glucose perceptible (temps d'élimination du glucose buccal) introduit dans la bouche au moyen d'un rince-bouche avant le début des expériences. Dans une seconde étude, on a mesuré le temps d'élimination du glucose buccal chez 40 jeunes adultes après qu'ils se furent brossé les dents, eurent mâché de la gomme au xylitol ou n'eurent rien fait du tout. Les résultats ont démontré que le temps d'élimination du glucose buccal était considérablement réduit quand une personne avait mâché de la gomme au xylitol (réduction moyenne de 49 pour cent; $p < 0,001$) ou s'était brossé les dents (réduction moyenne de 41 pour cent; $p < 0,001$).

after every meal, after bed-time snacks, and after eating any sweet foods in order to clean the sugar off the teeth.

In this paper, we report on two studies which indicate that the use of a chewing gum sweetened with the non-cariogenic sugar alcohol xylitol is as effective as toothbrushing in eliminating glucose experimentally introduced in the oral cavity. It was also seen that the increased salivary flow resulting from the use of this masticatory imparted physicochemical properties to saliva that are considered beneficial to oral health.

MATERIALS AND METHODS

Study 1

In this experiment, the salivary parameters that are likely to alter the acid-producing potential of dental plaque³ were evaluated and compared in samples of oral

fluid obtained from six subjects following seven experimental treatments. The subjects selected for the study were three males and three females, aged 13 to 18 years ($\bar{x} = 15.6 \pm 2.5$), who volunteered for the seven-week experiment. On the morning assigned for the weekly session, they reported to the laboratory within 20 minutes following a standardized breakfast. To ensure comparable levels of oral hygiene over the whole study, the subjects were asked to refrain from toothbrushing and flossing during the preceding 48 hours. A particular treatment corresponded to each of the seven weekly sessions and the sequential allocation of the seven treatments to the subjects was performed following a random plan.

A baseline treatment consisted of obtaining unstimulated saliva over a 10-minute period. For this purpose, the subject was isolated in a quiet room and asked, while sitting, to let the saliva drip from the lower lip into a graduated conical centrifuge tube, and finally, to expectorate the remaining saliva.

Five treatments consisted of obtaining the whole saliva produced during the stimulation by chewing for three minutes on a gum or a sterile, washed rubber band. Four gums differing in respect to their sweetening agent were used (**Table I**). The salivary fluids were expectorated into a graduated centrifuge tube at one-minute intervals for a total of three minutes and the flow rate was determined.

In a seventh session, the subjects were asked to brush their teeth with toothpaste (Crest, The Procter & Gamble Company of Canada, Ltd., Toronto, Ontario), using their own toothbrush and their usual pattern and timing of brushing. The brushing was ended with a rinse using 10 ml of tap water, and all oral fluids from brushing and rinsing were pooled. Flow rate was determined by timed collection of the fluids collected and measured, minus 10 ml.

The pH of the oral fluid was determined electrometrically within 15 minutes of obtaining the sample, using a glass combination electrode. The buffer capacity was determined using a modification of the method described by Ericsson⁴ and Frostell.⁵ To 1.5 ml of 0.005 N hydrochloric

acid was added 0.5 ml of oral fluid. The mixture was vigorously vortexed for 10 seconds, then allowed to stand for five minutes to standardize the release of carbon dioxide. The final pH was determined electrometrically.

Forty-five to 60 minutes later, the effect of the various treatments on the oral glucose clearance time of each subject was determined, by the method of Keene et al.⁶ After an oral rinse for two minutes with 10 ml of 20 per cent glucose (w/vol) solution in water, an experimental treatment was implemented for two minutes. Then the subjects were asked to expectorate oral fluid every other minute on two reagent strips (Clinistix and Diastix, Ames Division, Miles Laboratories, Ltd., Rexdale, Ontario), which give a colour change in the presence of a glucose concentration superior to one mg per ml. This was repeated at two-minute intervals until there was no observable colorimetric reaction on either strip. The time elapsed after the glucose rinse was recorded as the oral glucose clearance time.

Study 2

In a second study, the number of participants was increased to 40; young patients, dental students and staff, 16 to 32 years of age ($\bar{x} = 22.0 \pm 3.5$). The weekly treatments under investigation were reduced to three, namely: resting condition, toothbrushing and xylitol gum. The oral glucose clearance time following each treatment was determined as described in the first study. In a fourth session, the flow rate, salivary pH and buffer capacity of saliva were determined from a sample of saliva collected during the mastication of a xylitol gum. At each visit the time which elapsed since the last meal and the last toothbrushing performance was obtained by questioning the subject.

RESULTS

It can be seen from **Table II** that mechanical stimulation alone, as experimented in the first study using rubber bands, increased by 112 per cent the resting flow rate of mixed saliva of the six subjects, and toothbrushing with toothpaste by 120 per cent. Chewing on a sweetened gum

Table I. Sweetener content (w/w) of the chewing gum*

Sweetener	Sucrose glucose gum**	Sorbitol gum***	Sorbitol xylitol gum†	Xylitol gum††
Sucrose	59%	—	—	—
Glucose	10%	—	—	—
Sorbitol	—	67%	50.1%	—
Xylitol	—	—	14.7%	64.4%

*Each stick of gum weighted an average of 1.691 ± 0.005 g and contained 7-8% of calcium carbonate

**Dentyne Gum, Adams Brands Inc., Toronto, Ontario

***Trident (R) Sugarless gum, Warner-Lambert Company, Morris Plain, N.J., U.S.A.

†Trident Sugarless gum, Adams Brands Inc., Toronto, Ontario

††Gift from the Adams Brands Inc., Toronto, Ontario

Table II. Salivary parameters and oral glucose clearance time following each of the seven treatments under investigation in the first study (mean of 6 subjects $\pm$ standard deviation)

Treatment	Flow rate (ml/min)	pH	Buffer capacity (final pH)	Oral glucose clearance time
At rest	0.56 $\pm$ 0.23	6.59 $\pm$ 0.33	3.79 $\pm$ 0.46	22.0 $\pm$ 4.2
Sucrose Glucose Gum	2.45 $\pm$ 0.93	7.18 $\pm$ 0.26	5.64 $\pm$ 1.01	22.3 $\pm$ 6.9
Sorbitol gum	2.48 $\pm$ 0.77	7.26 $\pm$ 0.46	4.45 $\pm$ 0.96	13.6 $\pm$ 2.9
Sorbitol Xylitol Gum	1.96 $\pm$ 1.03	7.18 $\pm$ 0.26	5.40 $\pm$ 0.45	14.0 $\pm$ 3.3
Xylitol Gum	2.13 $\pm$ 0.60	7.24 $\pm$ 0.22	5.61 $\pm$ 0.54	15.0 $\pm$ 4.3
Rubber band	1.19 $\pm$ 0.24	6.95 $\pm$ 0.18	4.95 $\pm$ 0.45	14.0 $\pm$ 5.9
Tooth-brushing	1.29 $\pm$ 0.61	6.62 $\pm$ 0.38	3.03 $\pm$ 0.24	16.0 $\pm$ 6.3

could increase the resting flow rate by 250 to 343 per cent. The oral fluid produced during toothbrushing had a pH comparable to that of resting saliva, while chewing on a rubber band increased it by 0.36 units, and chewing on a sweetened gum by 0.59 to 0.67 units. Only the oral fluid resulting from toothbrushing plus rinsing had a reduced buffer capacity as compared to resting saliva. In contrast, mechanical stimulation by mastication increased the salivary buffer capacity by 0.66 to 1.85 pH units. The mean oral glucose clearance time of the six subjects was reduced from 22 minutes to 13.6 — 16 minutes following implementation of a masticatory stimulus of toothbrushing.

The use of a gum sweetened with glucose and sucrose maintained at 22 minutes, the time necessary to eliminate all detectable glucose.

In the second study, performed on the larger group of subjects, it was seen that the resting oral glucose clearance time was reduced by 49 per cent using the xylitol gum and by 41 per cent using the toothbrush. The mean values of 11.9 minutes and 13.7 minutes obtained with xylitol gum chewing or toothbrushing, respectively (Table III), differed significantly from the mean oral glucose clearance time at rest, 23.4 minutes ($P < 0.001$, Wilcoxon t-test for paired series).

The variability of the determination of oral glucose clearance time using the two reagent strips Clinistix and Diastix was performed by determining the value 14 times at intervals of three to five days in the same subject. The observed standard deviations were minimal (Clinistix:

Continued on next page

Table III

Oral glucose clearance time in 40 subjects following each of the three treatments under investigation in the second study

Oral glucose clearance time	At rest	Tooth-brushing	Xylitol gum
Mean (n = 40)	23.4	13.7*	11.9*
Standard deviation	6.1	4.9	3.8
Range	10 — 40	6 — 32	6 — 20
Median	24	12	12

*Means significantly different from the mean oral glucose clearance time at rest ($p < 0.001$, Wilcoxon T-test for paired series), and from each other ($p < 0.05$, same test).

Table IV

Salivary parameters in 40 subjects during stimulation by chewing on a xylitol-sweetened gum for 3 min.

	Flow rate (ml/min)	pH	Buffer capacity (final pH)
Mean	2.71	7.26	4.71
Standard deviation	0.89	0.31	1.19
Range	1.33 — 4.50	6.6 — 7.9	2.78 — 6.49
Median	2.65	7.32	5.0

$\bar{x} = 28.143 \pm 0.949$; Diastix: $\bar{x} = 27.286 \pm 0.994$), indicating that oral glucose clearance time was a stable characteristic of the subject over time. The coefficient of variation (V) of the 14 determinations using each strip (Clinistix: $V = 3.2$ per cent; Diastix: $V = 3.7$ per cent) indicated that both reagents permitted reproducible determinations of oral glucose clearance time.

Table IV gives the values of flow rate, pH and buffer capacity of the saliva obtained from the 40 subjects stimulated by mastication for three minutes on a xylitol chewing gum. A correlation analysis performed between the variables recorded in the study indicated an inverse relationship between salivary flow rate during mastication of a xylitol gum and oral glucose clearance time using this gum ($r = -0.34$). It was also seen that the stimulated flow rate of saliva was dependent on factors such as age and time elapsed since the last food intake (**Table V**). A partial correlation analysis of the variation of the oral glucose clearance time using the gum as a function of salivary flow rate was made, eliminating the influence of age and time elapsed since the last meal. A significant correlation was thus obtained ($r = -0.45$; $P < 0.05$, t-test). From the corresponding coefficient of determination ($r^2 = 0.20$), it was assessed that 20 per cent of the variations in the oral glucose clearance time using the xylitol gum were influenced by the salivary flow thus stimulated. Significant positive correlation between xylitol gum-stimulated flow rate and salivary pH ($r = 0.41$), and salivary buffer capacity ($r = 0.46$) were observed.

DISCUSSION

It is well established that the overall effect of saliva is to reduce the magnitude of the "Stephan curve", i.e. to limit the pH drop and accelerate the rise.^{3,7} With increasing salivary flow, the saliva tends to have a higher pH value and buffer capacity,^{8,9} which suggests that stimulated saliva might exert protective mechanisms in the process of caries development. In the present study, it was seen that sweetened chewing gums can act as effective stimulators by increasing the salivary flow rate by more

than 250 per cent as compared to the resting condition. As reported by others,¹⁰ this was accompanied by an increase in salivary pH values and buffer capacity more pronounced than with the use of an unsweetened stimulator.

In studies of the relationship between fermentable carbohydrate and dental caries, attention must be paid to the rate of elimination of the carbohydrates from the oral cavity.¹¹ Although a significant correlation between the oral carbohydrate clearance rates of individuals after food ingestion and their caries experience cannot be claimed,^{6,12} it is generally accepted that a slower elimination of carbohydrates is probably an important factor in the increased caries susceptibility. Accordingly, practices resulting in a decreased availability of fermentable substrate within the time-frame of the Stephan curve are likely to have caries preventive potential. Within the limits of the present experimental conditions: 1) using glucose orally introduced as a rinse, and 2) evaluating the salivary levels of glucose at regular time-intervals after the rinse to measure its disappearance, our results indicate that chewing on a piece of sugar-free gum for two minutes was as effective as toothbrushing in reducing by approximately half the "normal" clearance time. It was seen that 20 per cent of this effect could be attributed to the increased secretion of saliva. It is known¹¹ that the frequent movements of tongue and lips, as they occur during the mastication of a gum, are in addition, largely responsible for a rapid elimination of carbohydrates.

A sucrose-and-glucose-containing gum did not exert the same effect — presumably because it contributed an additional load of glucose to that introduced by the rinse. Thus, a full preventive potential in terms of (i) increasing salivary flow rate, (ii) increasing the pH of saliva, (iii) increasing the salivary buffer capacity, and (iv) reducing the intra-oral retention time of fermentable carbohydrates, appears an attribute of the sugar substitutes, sorbitol or xylitol, used as sweetener in a chewing gum. Studies which take simultaneously into account these parameters plus the metabolic characteristics of the substitute, i.e. studies of dental plaque pH values follow-

Table V. Elapsed time after last meal and last toothbrushing performance before implementation of the experimental treatments

	Min after last meal				Min after last toothbrushing		
	At rest	Xylitol gum	Tooth-brushing		At rest	Xylitol gum	Tooth-brushing
Mean (n = 40)	109	123	155		160	189	175
Standard deviation	107	112	206		192	196	194
Range	10 — 530	15 — 540	2 — 1080		15 — 720	10 — 720	5 — 695
Median	60	92	82		75	115	117

ing exposure of the plaque to sugar-substitutes,^{13,14} have led to the recognition that sorbitol is hypoacidogenic and xylitol is nonacidogenic.¹⁵ These observations suggested that these substitutes could be noncariogenic. A comparison of the results of clinical trials using these two sugar substitutes indicates that only xylitol may be considered virtually or completely noncariogenic. Figures of caries reduction in the magnitude of 85 per cent can be attained with the use of a xylitol-containing product,¹⁶ in comparison to figures in the range of 10 to 48 per cent when using sorbitol.¹⁷⁻¹⁹ This advantage of xylitol over sorbitol must be seen as the natural consequence of their biological characteristics. Xylitol, a pentitol, cannot be fermented by oral microorganisms,²⁰ whereas sorbitol, a hexitol, is readily fermented to acids by such cariogenic bacteria as *Streptococcus mutans* and *Lactobacillus casei*. Actually, the fermentation of sorbitol by *S. mutans* is used by bacteriologists as a key-test for the differentiation of *S. mutans* from other oral streptococci. It thus may be feared that repeated use of sorbitol-containing products may select for *S. mutans* among oral streptococci competing for the same ecological niche. In contrast, it has been observed that the presence of xylitol partially inhibited the growth of *S. mutans* in a medium containing glucose as a carbon source.²¹⁻²⁵ If substantiated *in vivo*, this inhibitory capacity of xylitol suggests the potential use of the molecule for the prevention of dental caries according to the specific plaque hypothesis.²⁶

An appreciation of the value of chewing xylitol gum for the prevention of dental caries must take into consideration the readily accepted fact that natural salivary constituents contribute significantly to oral health and caries control.^{27,28} The data of the present study thus fit into a scheme describing the pertinence of xylitol gum chewing to caries control which comprise the following: 1) masticatory stimulation for three minutes by the use of a chewing gum triggers a salivary flow capable of filling the oral cavity with four to 13 ml of a natural, physiological mouth rinse; 2) provided no additional fermentable carbohydrate is eluted from and distributed by the gum, this practice will reduce by half the normal oral clearance time of previously ingested sugars; and 3) if xylitol is incorporated as the sweetener in the gum, full expression of the beneficial effects of this molecule as an inhibitor of cariogenesis²⁰ may virtually lead to an arrest of caries progress.^{16,29}

Because the frequency of sugar exposures in the form of snack foods and confections currently remains high,^{30,31} especially in children who consume up to 2.4 sugared snacks per day,³² and because the recommended preventive measure — "immediate toothbrushing"³³ is met with poor compliance (only 1.7 per cent of children brush teeth after snacks³⁴), immediate post-prandial xylitol gum chewing instead of toothbrushing seems appropriate. The following recommendations can be given: 1) chew a gum containing xylitol for three minutes immediately after

each meal or snack, 2) do not swallow saliva as it is produced but rather use it as a mouth rinse, and 3) discard the gum after the sweet taste has disappeared.

Presented in part at the 60th General Session of the International Association for Dental Research and the Annual Session of the American Association for Dental Research, March 21, 1982.

Supported by a grant from Hoffman-La Roche Ltd., Bramp-ton, Ontario and Xyrofin Ltd., Baar, Switzerland. The author wishes to thank Dr. R.G. Landry for allowing access to the bank of patients of the summer clinics, and L. Lamonde and M. Plante for able assistance.

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REFERENCES

1. Bowen, W.H. Role of carbohydrates in dental caries. In: *Proceedings, Sweeteners and Dental Caries. Sp. Supp. Feeding, Weight and Obesity Abstracts*, 1978, J.H. Shaw and G.G. Roussos (eds) pp. 147-152.
2. Newbrun, E. Cariology. Baltimore, *The Williams & Wilkins Company*, 1978, pp. 76-96.
3. Jenkins, G.N. Salivary effects on plaque pH. In: *Proceedings Saliva and Dental Caries, sp. Supp. Microbiology Abstracts*, 1979, I. Kleinberg, S.A. Ellison and I.P. Mandell (eds.) pp. 307-322.
4. Ericsson, Y. Clinical investigations of the salivary buffering action. *Acta Odont Scand* 17:131, 1959.
5. Frostell, G. A colorimetric screening test for evaluation of the buffer capacity of saliva. *Swed Dent J* 4:81, 1980.
6. Keene, H.J., Coykendall, A.L. and Lahmeyer, H.A. Oral glucose clearance time in caries-active and caries-resistant naval recruits. *J Dent Res* 45:409, 1966.
7. Edgar, W.M. The role of saliva in the control of plaque changes in human dental plaque. *Caries Res* 10:241, 1976.
8. Kleinberg, I. and Jenkins, G.N. The pH of dental plaques in the different areas of the mouth before and after meals and their relationship to the pH and rate of flow of resting saliva. *Arch Oral Biol* 9:493, 1964.
9. Shannon, I.L., Suddick, R.P. and Dowd, F.J. Saliva: composition and secretion. In: *Monographs in Oral Science*, Vol. 2. H.N. Myers (ed), Basel, S. Karger AG, 1974.
10. Söderling, E., Rekola, M., Mäkinen, K.K. et al. Turku sugar studies XXI. Xylitol-, fructose- and sucrose-induced physicochemical changes in saliva. *Acta Odont Scand* 33:337, 1975.
11. Sundstrom, F. Influence of saliva on the availability of carbohydrate substrate. In: *Sp. Suppl. Proceedings, Saliva and Dental Caries* I. Kleinberg, S.A. Ellison and I.D. Mandel (eds). *Microbiology Abstracts*, 1979, pp 323-331.
12. Sundstrom, F. and Ericsson, Y. Oral carbohydrate clearance: Testing methods and clinical significance. *Caries Res* 2:214, 1968.
13. Birkhed, D. and Edwardsson, S. Acid production from sucrose substitutes in human dental plaque. In: *Health and Sugar Substitutes, Proc ERGOB Conference*, Geneva, Basel, Karger, 1978, B. Guggenheim (ed.), pp 211-217.
14. Imfeld, T. Evaluation of the cariogenicity of confectionery by intra-oral wire-telemetry. *Helvet Odont Acta* 21:1, 1977.

Continued on next page

15. Imfeld, T. and Muhlemann, H.R. Evaluation of sugar substitutes in preventive cariology. *J Prevent Dent* 4:8, 1977.
16. Scheinin, A., Mäkinen, K.K., Tammisalo, E. et al. Turku sugar studies XVIII. Incidence of dental caries in relation to 1-year consumption of xylitol chewing gum. *Acta Odont Scand* 33:269, 1975.
17. Banoczy, V.J., Hadas, E., Esztari, I. et al. Dreijährige Erfahrungen mit Sorbit im klinischen Längsschnitt-Versuch. *Karies Prophylaxe* 2:39, 1980.
18. Møller, I.J. and Poulsen, S. The effect of sorbitol-containing chewing gum on the incidence of dental caries, plaque and gingivitis in Danish schoolchildren. *Commun Dent Oral Epidemiol* 1:58, 1973.
19. Slack, G.L., Millward, E. and Martin, W.J. The effect of tablets stimulating salivary flow on the incidence of dental caries: A two-year clinical trial. *Br Dent J* 116:105, 1964.
20. Mäkinen, K.K. Biochemical Principles of the Use of Xylitol in Medicine and Nutrition with Special Consideration of Dental Aspects. Basel and Stuttgart, Birkhauser Verlag, 1978.
21. Assev, S., Vegarud, G. and Rolla, G. Growth inhibition of *Streptococcus mutans* strain OMZ176 by xylitol. *Acta Path Microbiol Scand*, Sect. B 88:61, 1980.
22. Havenaar, R., Huis In't Veld, J.H.J. Backer Dirks, O. et al. Some bacteriological aspects of sugar substitutes. In: Health and Sugar Substitutes. Geneva, and Basel, *Proceedings ERGOB Conference*, Karger, 1978, B. Guggenheim (ed). pp. 192-198.
23. Knuttila, M.L.E. and Mäkinen, K.K. Effect of xylitol on the growth and metabolism of *Streptococcus mutans*. *Caries Res* 9:177, 1975.
24. Mouton, C. Modulation by Xylitol of Salivary Parameters Controlling Plaque Acidogenicity. *J Dent Res* Vol. 61 Abst. 1454, 1982, p. 340.
25. Rølla, G., Oppermann, R.V., Waaler, S.M. et al. Effect of aqueous solutions of sorbitol-xylitol on plaque metabolism and on growth of *Streptococcus mutans*. *Scand J Dent Res* 89:247, 1981.
26. Loesche, W.J. Chemotherapy of dental plaque infections. *Oral Sci Rev* 9:65, 1976.
27. Dawes, C. Augmentation and supplementation of natural salivary constituents in caries control. In: *Proceedings, Saliva and Dental Caries*, sp. suppl. I. Kleinberg, S.A. Ellison and I.D. Mandel (eds). Microbiology Abstracts, 1979, pp. 505-514.
28. McNamara, T.F., Friedman, B.K. and Roth, P. Salivary access as an ecological determinant. In: *Proceedings, Saliva and Dental Caries*, sp. suppl. I. Kleinberg, S.A. Ellison and I.D. Mandel (eds). Microbiology Abstracts 1979, pp 211-225.
29. Scheinin, A. Caries control through the use of sugar substitutes. *Int Dent J* 26:4, 1976.
30. Bibby, B.G. The cariogenicity of snack foods and confections. *J Am Dent Ass* 90:121, 1975.
31. Wei, S.H.Y. Strategy for the control of severe dental caries in the adolescent. *Int Dent J* 31:295, 1981.
32. Lachapelle-Harvey, D. and Sevigny, J. Qualité de l'alimentation, consommation de sucreries et carie dentaire chez un groupe d'adolescents de la banlieue de Québec. *Canad Dent Ass J*. Accepted for publication.
33. Fosdick, L.S. The reduction of the incidence of dental caries. I. Immediate toothbrushing with a neutral dentifrice. *J Am Dent Ass*. 40:133, 1950.
34. Chen, M.-S. and Robinson, L. Preventive dental behavior in families: a national survey. *J Am Dent Ass* 105:43, 1982.

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SASKATCHEWAN — University of Saskatchewan. College of Dentistry, Saskatoon, Saskatchewan Canada. Effective July 1, 1984, a vacancy for a full-time faculty member will exist in the Department of Diagnostic and Surgical Sciences, College of Dentistry, University of Saskatchewan. A suitable candidate could be considered for Head of the Department, which includes Diagnosis, Radiology, Oral Medicine, Oral Pathology, Oral Surgery and Periodontics. Applicants should have postgraduate training in, or related to, Diagnosis and Oral Radiology, with a major emphasis on Oral Radiology, and should be eligible for licensure with the College of Dental Surgeons of Saskatchewan. Responsibilities include undergraduate teaching related to Oral Radiology, diagnosis and treatment planning and supervision of related clinical and service activities. Research facilities are available and the adjacent University Hospital Dental Residency Program may provide useful resources. Maxillofacial radiology equipment presently installed in the department includes intra-oral, cephalometric, panoramic

and tomographic units. Consulting and practice privileges to a maximum of two half days per week are permitted, either on or off base. An Intramural Practice Unit is provided for faculty who wish to utilize on-base facilities. Salary and rank commensurate with qualifications and experience. Interested applicants should send curriculum vitae and related documentation with at least three names for reference purposes to: Dr. E.R. Ambrose, Dean, College of Dentistry, University of Saskatchewan, Saskatoon, Saskatchewan, S7N 0W0.

ONTARIO — Toronto. Clinical researcher nasal air flow laboratory. Knowledge of computer-aided rhinometry, nasal physiology, and facial growth important. Supervision of technician involved. Must interface in clinical consultation with otolaryngologists, plastic surgeons, orthodontists and pedodontists. Reply to: Department of Otolaryngology, Hospital for Sick Children, 555 University Ave., Toronto, Ontario, M5G 1X8, Attention: Dr. W.S. Crysdale.

ONTARIO — Toronto. University of Toronto, Faculty of Dentistry, invites applications for a tenure-track position at Assistant Professor level in Preventive Dentistry. Candidates should be licensed to practice dentistry in Canada and should have a PhD in Biochemistry or a related subject. Preference will be given to persons with a demonstrated record of productive research in a dental sciences environment. The successful applicant will be expected to conduct research into the biology of dental hard tissues and dental caries and to teach in this area. Applications with complete C.V., list of publications and the names of three references, should be directed to Dr. R.C. Burgess, Faculty of Dentistry, University of Toronto, Toronto, M5G LG6, Canada. Closing date for applications is **September 30, 1983**. In accordance with Canadian Immigration requirements, this advertisement is directed to Canadian citizens and permanent residents.

Opportunities Wanted

BRITISH COLUMBIA — Vancouver. I am an experienced general practitioner looking for a part of full time associateship in Vancouver. Vitae includes additional health care training. Age: early thirties. Days, hours, terms, flexible. Please reply with your practice information to CDA Box No. 2178.

BRITISH COLUMBIA — Gnathologically oriented dental technician seeking employment possibilities in Canada. Apprenticed and licensed in the province of B.C. Certified in USA. Nineteen years experience. For further information, contact: R.K. Williams, N. 317 Pines Rd., Spokane, Washington, USA. 99206. Phone: 509-928-0545.

Miscellaneous

ONTARIO — Toronto. Doctoral candidate at Ontario Institute for Studies in Education (Toronto) is researching coping strategies of married, professional women, with children, 40 to 60 years of age, dealing with role stress and conflict. Could you contribute one hour's time to answer questionnaire? Please write CDA Box Number 2180.

ONTARIO — West Toronto. Recently built private home with professionally designed dental office, two operatories. Superior location. Please Reply CDA Box #2168

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Announcements/Avis

1983 CANADA

September/septembre

Meeting of the Canadian Academy of Prosthodontics, Vancouver, B.C., September 22-24, 1983. Contact: Dr. B.M. Jackson, 22 Water Street S., Kitchener, Ontario N2G 4K4.

The Canadian Academy of Restorative Dentistry annual meeting, Vancouver British Columbia, September 23-24 1983. Theme this year is "Esthetics — A Multidisciplinary Approach." Contact: Dr. Terry Kline, 1505-805 West Broadway, Vancouver B.C. V5Z 1K1.

The Royal College of Dentists of Canada is holding its annual meeting, convocation and annual dinner September 23-24, in Vancouver British Columbia. Contact: Kay Montgomery, Executive Secretary, The Royal College of Dentists of Canada, Suite 614, 170 St. George St. Toronto, Ontario, M5R 2M8, (416) 964-7263 for more information.

The Association of Prosthodontists of Canada, Annual Meeting, September 24-25, in Vancouver, B.C. Program Chairman: Dr. D. Donaldson, Faculty of Dentistry, University of British Columbia.

The XI Psi Phi Dental Fraternity (British Columbia Chapter) will hold a luncheon meeting in Vancouver, B.C. September 25. Social Suite East, Hotel Vancouver. Contact: M. J. T. Donan, 2760 Beach St., Victoria, B.C. V8R 6K5.

Time Institute presents seminar on time management, Downsview Ontario, The Triumph Sheraton Hotel September 26, 1983. Seminar repeated September 28 at Lowes Westbury Hotel, Toronto, and September 30, Ramada Renaissance Hotel, Scarborough Ontario. Contact: 416-491-0777 for information.

The Royal College of Dentists of Canada Symposium on Periodontal Diseases, generously supported by Colgate-Palmolive Canada, as part of the Canadian Dental Association's National Convention, Vancouver, B.C., Monday, September 26, 1983. The keynote speaker for the Symposium will be Dr. Harald Löe, newly appointed Director of the National Institute of Dental Research, Bethesda, Maryland, and presently Dean of the School of Dental Medicine at The University of Connecticut.

First International Symposium on: "Today's Research, Tomorrow's Health Care Delivery." At Faculty of Dentistry, Dalhousie University, Halifax, N.S. September 30 — October 1. Contact: International Symposium, Anniversary 75, Continuing Education Office, Faculty of Dentistry, Dalhousie University, Halifax, N.S. B3H 3J5. Telephone (902) 424-2248 or 424-6507.

Canadian Dental Association 1983 National Convention/l'Association dentaire canadienne Congress Nationale, Vancouver British Columbia, September 25-28 1983.

October/octobre

Annual meeting of the Great Lakes Society of Orthodontists, Ottawa Ontario, October 8-12 1983, Chateau Laurier Hotel. Chairman: Dr. Ray Bozek.

The Canadian Academy of Endodontics is holding its annual general meeting Winnipeg Manitoba, October 14-16, 1983. Contact: Dr. W. H. Christie, 233 Kennedy St. Suite 506, Winnipeg Man. R3C 3J5.

The Canadian Pain Society annual meeting and multidisciplinary conference on pain, Saskatoon, Saskatchewan, October 14-16 1983. Contact: Pain '83, Conference Office, Kirk Hall 105, University of Saskatchewan, Saskatoon, Saskatchewan, S7N 0W0 for more information.

Bytown Dental Study Club presents Dr. John Flocken lecturing on electrosurgery, Ottawa Ontario, October 21-22 1983. Contact: Dr. D.J. Smith, 613-232-7880 for information.

November/novembre

The 25th Anniversary Symposium entitled "Will Basic Research Influence Clinical Dentistry in the Future?", Faculty of Dentistry, University of Manitoba, Winnipeg, Manitoba. November 18-19 1983. Contact Dean, Dr. A. Schwartz, Faculty of Dentistry, University of Manitoba, 780 Bannatyne Ave., Room D-113, Winnipeg, Man. R3E 0W3. Phone 204-786-3631.

Toronto Academy of Dentistry Annual Winter Clinic, Royal York Hotel, Toronto Ont. November 24, 1983. Contact: Academy of Dentistry, 234 St George St. Toronto Ont. M5R 2P2, Telephone 416-967-5649.

International

October/octobre

American Dental Association 124th Annual Session, Anaheim, California, October 1-6 1983. Scientific Session October 1-4. Contact: Council on International Relations, American Dental Association, 211 E. Chicago Ave., Chicago, Illinois, 60611. (312) 440-2726 for more information.

The First South African Endodontic Congress, Johannesburg, South Africa, October 2-7, 1983. Post Congress tours are also available. Contact either: Westpoint Travels Ltd, 11 Biccarrd St. (Corner Smit St.) Braamfontein, 2001, South Africa. or South African Tourist Corporation, 20 Eglinton West, Toronto, Ont. Phone: 416-482-7077.

The Prosthodontics Research Group of the International Association for Dental Research announces the continuation of its Novice Award. Sponsored by the Coors Biomedical Company, the award is \$1,000. Eligible participants are those making their first presentation at the IADR/AADR meeting in Dallas, Texas March 15-18, 1984. Abstracts due no later than **October 4, 1983**. Contact: Dr. John Houston, 700 Bay St. Suite 404, Toronto Ont. M5G 1Z6.

UCLA Extension and UCLA School of Dentistry holding the West Coast Conference on Geriatric Dentistry, Sheraton Plaza La Reina Hotel, Los Angeles, California, October 21-23, 1983. Contact: Ronald L. Linder, Continuing Education in Health Sciences, UCLA Extension, P. O. Box 24901, Los Angeles, California, 90024.

Seventh Annual American Dental Association Conference on Foods, Nutrition and Dental Health. Chicago, Illinois, October 27, 28 at Harold Hillenbrand Auditorium, 211 East Chicago Ave. Abstracts of research findings related to food cariogenicity and technology may be submitted for oral or poster presentation.

Contact Joan C. Sayers, Staff Coordinator, FNDH Program Research Institute, ADA Health Foundation at the above address, in Chicago, Ill. 60611, or telephone (312) 440-2530.

The XVII National and International Congress of the Mexican Dental Association, Mexico City, Mexico, October 30-November 2, 1983, at the National Medical Centre. Scientific program includes nine courses, 27 free papers and 90 table clinics. Contact: Dr. Santiago Lopez Bago, Promotion Committee, Association Dental Mexicana, A.C., Ezequiel Montes 92, 06030 Mexico, DF.

November/novembre

The American Institute of Oral Biology 40th annual meeting, Palm Springs, California, November 4-8 1983, Spa Hotel. Contact: Executive Secretary, P.O. Box 481, South Laguna, California, 93677 for more information.

Fédération Dentaire Internationale, 71st Annual World Dental Congress, Tokyo Japan, November 14-20, 1983. Contact: Japan Dental Association, 1-20, Kudan-Kita 4-chome, Chiyoda-ku, Tokyo 102, Japan.

The 37th International Education Congress of Dental Technology, New York City, November 17-19 1983, Sheraton Centre Hotel. Contact: IEC DT, Suite 507, 1500 Broadway, New York, New York, 10036, 212-730-0580.

December/décembre

NIH Consensus Development Conference on Dental Sealants in the Prevention of Tooth Decay, Bethesda, Maryland, December 5-7, 1983. ACRF Amphitheatre, Warren Grant Magnuson Clinical Centre, National Institute of Health. Sponsored by the National Institute of Dental Research and the NIH Office of National Applications of Research. Contact: Peter Murphy, Prospect Associates, Suite 401, 2115 East Jefferson St., Rockville, Maryland, 20852, (301) 468-6555.

1984+

The Centre of Pediatric Dentistry is organizing the "Second Dominican Congress of Pediatric Dentistry" in Santo Domingo, January 27-29 1984. Congress themes are Prevention and Clinical Aspects. Fees are \$50 U.S. Contact: Dr. Franklin Garcia-Godoy, Centre de Odontologie Pédiatrique, P.O. Box 2753 Santo Domingo, Dominican Republic, Telephone 809-689-4277 afternoons and evenings.

Miami Winter Meeting, Fontainebleu Hilton, Miami Beach Florida, February 2-4 1984. This is a program for international clinicians. Contact: the East Coast District Dental Society, 420 S. Dixie Highway, Suite 2-E, Coral Gables, Florida, 33146.

Chicago Dental Society, 119th Midwinter Meeting, Chicago, Ill. February 19-22, 1984. Conrad Hilton Hotel. Contact: Chicago Dental Society, 30 North Michigan Ave. Chicago Ill. 60602, 312-726-4076 for information.

La Commission d'Études Biomatérielles créée par le Centre Français de la Corrosion (Cefracor) organise à Strasbourg Germany au Palais de Conseil de l'Europe sur le thème "Corrosion et dégradation des biomatériaux et leurs incidences cliniques." les 5-7 Mars 1984. Pour tous renseignements s'adresser au Secrétariat du CEFACOR, 28 rue Saint Dominique 75 07 PARIS. Tél: 705.10.73 ou 705.39.26.

Advanced Paedodontics Course 338, The British Council, London/Newcastle Upon Tyne, March 18-30, 1984. Contact: The British Council, c/o The British High Commission, 80 Elgin St., Ottawa, Ont. K1P 5K7.

Co-joint Convention of The Canadian Dental Association and Les Journées Dentaire du Québec, Montreal, Quebec, April 8-12 1984. Palais des Congrès, Montreal. Contact: Dr. Michel Jahjah, General Chairman, 3565 rue Berri, Bureau 200, Montreal, Que. H2L 4G3, 514-842-9112.

Ontario Dental Association 117th Annual Spring Meeting, Toronto, Ontario, May 13-16, 1984, The Sheraton Centre. Contact: Mrs. A. M. Durham, 234 St. George St. Toronto, Ont. M5R 2P1, 416-922-3900 for information.

International Association of Oral Pathologists general meeting, to be held in Noordwijkerhout, the Netherlands, June 4-7 1984. Contact: Congress Secretaria, 2nd Meeting of the International Association of Oral Pathologists, c/o Mrs. R. Mooijen, AZVU Pathologisch Instituut, De Boelelaan 1117, MB Amsterdam, the Netherlands.

The International Congress of Oral Implantologists World Congress VII for Oral Implantology, Munich, West Germany, June 21-24, 1984. Munich Sheraton Hotel. Contact: Clifford J. Kirschner, Executive Director, The International Congress of Oral Implantologists, P.O. Box 2277, Grand Central Station, New York, NY. 10163, 201-783-6300.

Ninth Annual Congress of Dietetics, Toronto, Ontario, July 1-6, 1984. Hilton Harbour Castle Hotel. Topics covered will be varied. Continuing Education credits will be assessed for ADA and CDA registered dietitians. Contact: Congress Canada, Suite 603, 250 University Ave., Toronto, Ont. 416-591-1498.

The New Zealand Dental Association is holding its biennial conference, Auckland New Zealand, August 12-17 1984. Contact: Dr. N. P. Ewart, Conference Secretary, P.O. Box 28085 Auckland 5, New Zealand.

72nd Annual World Dental Congress of the FDI, Helsinki, Finland, August 25-31 1984. Contact FDI '84, Hallitusk 8, SF-00100, Helsinki 10, Finland.

Eighth International Congress of Dental Technicians, Cologne, Germany, October 4-5, 1984. Congress-Centrum Ost of the Cologne Trade Fair Complex. Contact: Messe-und Ausstellungen Ges m.b.h. Koln Messeplatz, Postfach 210760, D-5000 Koln, 21, Deutz.

11th Asian Pacific Dental Congress, Excelsior Hotel, Hong Kong, November 5-10 1984. Contact: Congress Secretariat International Conference Consultants 57, Wyndham St. 1st Floor, Central Hong Kong.

Second International Conference "Clinical Factors and Mechanisms Influencing Bone Growth", University of California, Los Angeles, January 1985. Abstracts submitted no later than June 30, 1984. Contact: Andrew Dixon or Bernard Sarnat, Dental Research Institute, School of Dentistry, School of Medicine, Centre for Health Sciences, University of California, Los Angeles, (UCLA), Los Angeles, California, 90024.

Canadian Dental Association 1985 National Convention/l'Association dentaire canadienne, congress nationale 1985 Ottawa Ontario, September 29-October 2, 1985.

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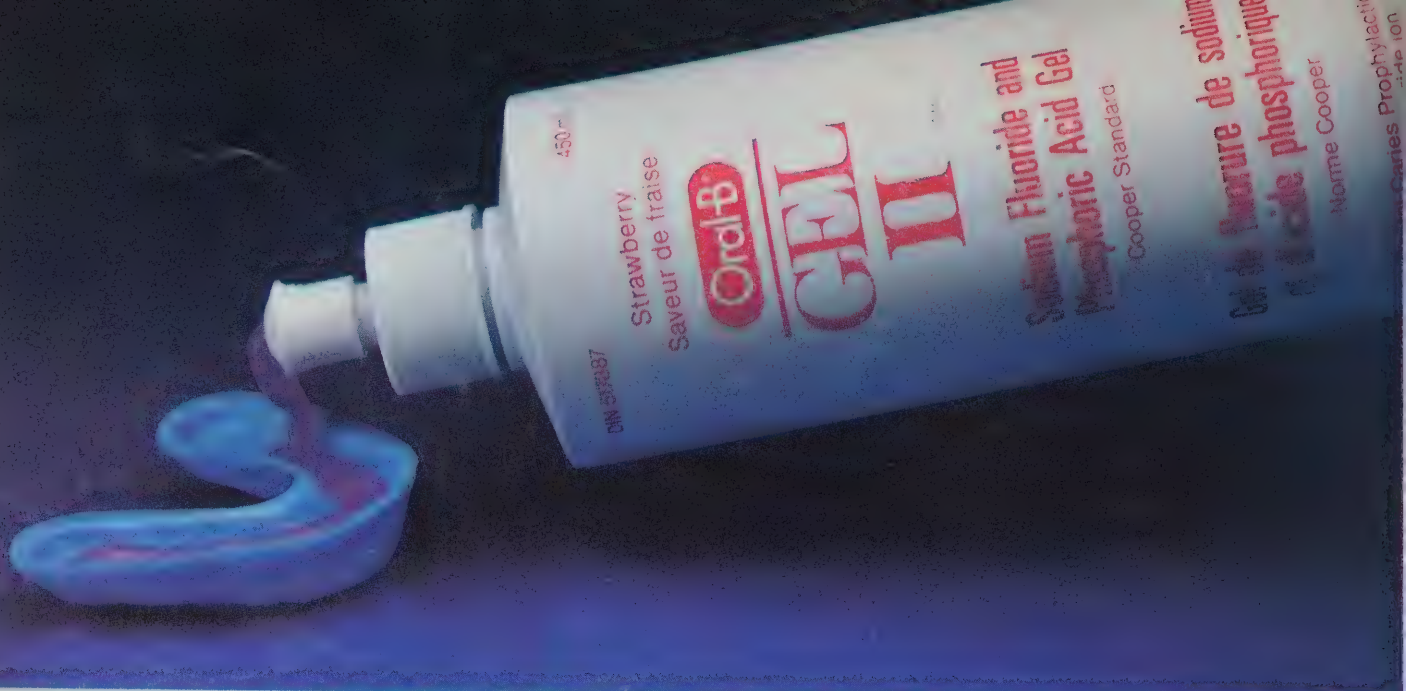
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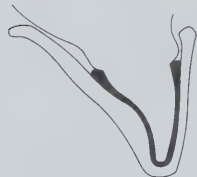
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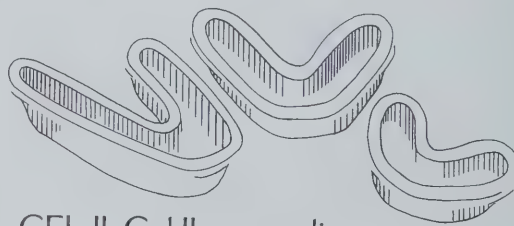
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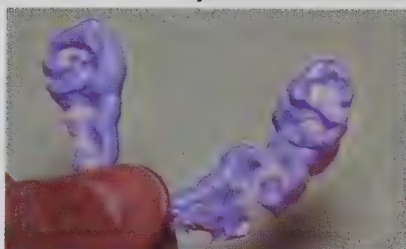
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References: 1. Ostrom, C.A. et al., J Dent Res, 56(3):212-221, 1977. 2. Arends, J., ten Cate, J.M., J Cryst Gro, 53:135-147, 1981. 3. Silverstone, L.M., Caries Res, 11 (Suppl. 1):59-84, 1977. 4. Data on file at Procter & Gamble, Inc. 5. Mobley, M.J., J Dent Res, 60(12):1943-1948, 1981. For further information, please contact Crest Professional Services, P.O. Box 355, Station A, Toronto, Ontario M5W 1C5

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Editorial

669 CDA's Executive Director stresses that only a strong national dental organization can effectively deal with problems and perils encountered by the profession.

CFDE Month

675 Dr. David K. Peters believes that dentists, as respected professionals, should invest a little in the enhancement of dentistry's future. October is CFDE Month.

In the News

678 **CDA Membership Services**
Because it is unlikely that many non-CDA members are familiar with the whole range of vital CDA services, a series of articles outlining the nature of those services begins in this edition of the Journal.

680 **President of the Japan Dental Association visits CDA's President**
Dr. Kazuo Yamazaki, President of the Japan Dental Association, paid a recent visit to Canada and made a courtesy call to the headquarters of the CDA and the President, Dr. William R. Thompson.

683 **McAllister extends aid program to Peru**
Bob McAllister, the former Lions Club president from Northern Ontario who has provided much in the way of dental equipment to Caribbean countries, has now begun to exert his energy toward providing facilities in Peru.

New Brunswick dental program is restored
This province's social service dental program, cut earlier in the year as an economy measure, has been restored as a result of effective lobbying.

684 **Academy of General Dentistry names first Canadian president**
Dr. Robert Patrick of Trenton, Ont., became the first Canadian president of the AGD at its annual meeting in Toronto.

County dental director tough on neglectful parents
A dental director in Ontario says he will take a strong stand against parents who neglect their children's dental health.

685 **A Canadian dentist in Saudi Arabia**
Dr. Axel Ruprecht explains details of dental education facilities and cultural differences in his new environment.

Briefly

688 Dental news items from across Canada and around the world, are highlighted.

Articles

691 **The computer in today's dental practice — certainly part of tomorrow**
Drs. W. F. Shaw and A. G. Randolph discuss the use of a computer in a small dental practice, based on their personal experience

697 **What's new in Endodontics? — An update.**
Dr. Calvin D. Torneck explains several innovative and interesting changes that have recently emerged in instruments and materials used in the practice of endodontics.

CDA Resource Centre

701 The CDA Library/Resource Centre lists articles available on the subject of Pedodontics. Also included is a list of new acquisitions in the Library.

Publications

703 **Pedodontics: A Systematic Approach**
"This book is an excellent clinically illustrated text that can be used by the undergraduate students, dental auxiliary staff, and should be general reading for graduate pedodontic students."
— Dr. Albert Shapira

704 **Outline of Forensic Dentistry**
The book is "a valiant effort on the part of the authors to outline forensic dentistry."
— Dr. Robert B. J. Dorion

Scientific

715 **Treatment of gingival recession**
— C. G. Ibbott

721 **Historical perspectives of mucogingival surgery**
— Donald W. Povey

725 **Psychological considerations in periodontal surgical patients**
— Vijay Pruthi

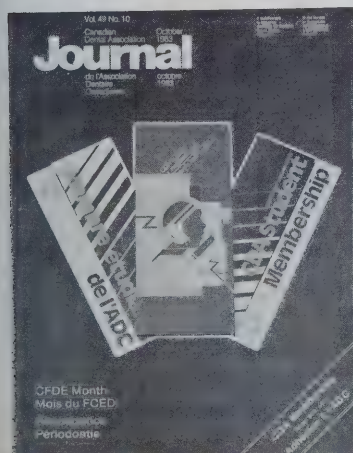
680 RRSP
686 Obituaries
729 Marketplace
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CDA Membership
1983-84

CFDE Month

Periodontics

Cover Photo: By Heather Lang-Runtz



Published monthly by the Canadian Dental Association at 1815 Alta Vista Drive, Ottawa, Ont. K1G 3Y6
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Notice of change of address should be received before the 10th of the month, to become effective the following month

Subscriptions: All subscriptions payable in advance in Canadian funds in Canada — \$35; United States — \$35; all other — \$38. Subscriptions are for 12 editions, not necessarily conforming with the calendar year

All statements of opinion and supposed fact are published on the authority of the author who submits them and do not necessarily express the views of the Canadian Dental Association, unless such statements or opinions have been adopted by the Association. The editor reserves the right to edit all copy submitted to the Journal.

ISSN0709 8936

- 670 Le directeur général de l'ADC affirme que seul un puissant organisme national peut s'occuper efficacement des problèmes et des difficultés que rencontre la profession dentaire.

Le Mois du FCED

- 676 Selon le Dr David K. Peters, les dentistes devraient, en tant que professionnels respectés, contribuer un peu à l'essor de la dentisterie de l'avenir. Octobre est le Mois du FCED.

Actualités

- 707 **Les services de l'ADC**
Afin de familiariser les personnes qui ne sont pas membres de l'ADC avec les services nombreux offerts par l'association, le Journal a entrepris la publication d'une série d'articles décrivant ces services.
- 709 **L'Académie de dentisterie générale choisit son premier président canadien**
Le Dr W. Robert Patrick de Trenton, Ont., devient le premier président canadien dans l'histoire de l'ADG.

Remise en vigueur du programme dentaire au Nouveau-Brunswick

Aboli plus tôt cette année dans le cadre des restrictions économiques, le programme dentaire du Service social du Nouveau-Brunswick a été restauré à la suite de pressions exercées auprès du gouvernement.

- 710 **Le président de l'Association dentaire du Japon rend visite à son homologue canadien**
Le Dr Kazuo Yamazaki, président de l'Association dentaire du Japon, a rendu une visite de courtoisie au Dr William Thompson au siège social de l'ADC, à Ottawa, à la mi-août.

- 711 **Un dentiste canadien en Arabie Saoudite**
Le Dr Axel Ruprecht donne des précisions touchant l'enseignement dentaire en Arabie Saoudite et relève les différences culturelles.

En bref

- 713 Un tour d'horizon des principales informations dentaires du Canada et dans le monde.
- 710 REER
- 686 Nécrologie
- 729 Petites annonces
- 731 Avis
- 732 Index de annonceurs

Journal

de l'Association
Dentaire
Canadienneoctobre
1983

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Le Mois du FCED
Periodontie

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Veuillez nous prévenir le 10 du mois de tout changement d'adresse pour recevoir le journal à votre nouvelle adresse le mois suivant

Tout abonnement est payable à l'avance en dollars canadiens. Au Canada — \$35, aux États-Unis — \$35, partout ailleurs — \$38. Il comprend 12 numéros qui ne correspondent pas nécessairement avec les mois d'une même année

La direction du Journal ne partage pas nécessairement les opinions qu'expriment ses collaborateurs à moins que l'Association Dentaire Canadienne ne les ait adoptées officiellement

MEMBERSHIP CAMPAIGN

1983/84

STRENGTH = EFFECTIVENESS

The 1980's have wrought cataclysmic changes in the former, relatively secure world of the professional in this country. We exist in a consumer oriented society which questions everything, wishes to know why and how decisions are reached and wants to be in charge of its destiny. It is necessary to justify action and to be accountable . . . to someone!

To all of you who practice dentistry it is therefore reasonable to assume that you would also expect any organization which solicits your membership to provide information about its goals and objectives and describe in greater detail its current programs.

Many articles have been written over the past several years listing the accomplishments or near-accomplishments of your national Association. You have received numerous letters listing the Association's goals and objectives. In spite of continued appeals, membership in the two provinces, Ontario and Quebec, where participation is voluntary, continues to be less than 100 per cent. The strength of member organizations rests in numbers and the support of all dentists is imperative if the CDA is to be an effective spokesman for the profession.

A successful lobby was mounted last year which helped convince the Minister of Finance to reverse his proposal to tax dental plans. The imposition of this tax alone would have had disastrous effects on the profession, and yet, the lobby could have been in jeopardy if the question of member representation had materialized. It is not always possible to identify a direct tangible benefit in government relations, but rest assured that the Association has established a much-needed dialogue with the federal government and credibility to back it up.

We have witnessed in the past several years the development of many new programs which complement those of your provincial and local societies:

- **Resource Library**
- **Multi-Professional Committee to Review RRSP Provisions for Self-Employed**
- **CDSPI — Insurance**
— RRSP
- **Dental Awareness Program**
- **Briefs to Government**
 - Dental Perspectives — Hall Commission
 - Taxation
 - Tariffs
 - Nutrition
 - Pension Reform
- **Publications**
 - Journal
 - Pamphlets — Health Education
 - Uniform System of Codes and List of Services
 - Code of Ethics
- **Formation of a Committee on Salaried Dentists**
- **Certification Program — Dental Materials**
- **Review of Occupational Health Hazards**
- **Dental Research, Education**

The CDA is working arduously to establish, maintain, and improve its communication network at all levels.

I have been privileged to serve the Association and its members for a short 4½ year period and as a newcomer can attest to the tenacity and devotion of the many officers, council and committee members who devote much of their time on behalf of all dentists in this country.

I am available to answer any inquiry regarding the aims and objectives of the Association — its financial status, its programs and to respond to any constructive criticism which may help develop a stronger and better national association.

*Hubert Drouin,
Executive Director, CDA,
Member, CDA Editorial Board*

CAMPAGNE DE RECRUTEMENT 1983-84 LA FORCE = L'EFFICACITÉ

La présente décennie semble devoir transformer de façon draconienne l'ancien monde, relativement sûr, de la profession dentaire au Canada. Nous sommes maintenant dans une société de consommateurs qui remettent tout en question, qui désirent savoir pourquoi et comment telle décision est prise, et qui veulent prendre en main leur destinée. Il est devenu nécessaire de tout justifier et de répondre de ses actes.

Il est donc tout à fait normal que tous ceux qui exercent la dentisterie s'attendent à ce qu'un organisme sollicitant leur adhésion fournisse des renseignements touchant ses objectifs et explique ses différents programmes.

Au cours des dernières années, de nombreux articles ont énuméré les projets et les réalisations de votre association nationale. Vous avez reçu plusieurs lettres décrivant les objectifs de l'ADC. Pourtant, malgré des appels répétés, l'adhésion au Québec et en Ontario — où elle est volontaire — n'atteint toujours pas 100 pour cent. La force d'un organisme repose sur le nombre de ses membres, et il est essentiel que l'ADC obtienne l'appui de tous les dentistes canadiens si elle veut être le porte-parole efficace de la profession.

L'an dernier, à la suite de pressions exercées auprès du gouvernement, l'ADC a réussi à faire rejeter une proposition du ministre des Finances visant à taxer les régimes d'assurance dentaire. Cet impôt aurait eu des conséquences désastreuses pour les dentistes et, pourtant, la victoire aurait pu être compromise si on avait soulevé la question de la représentation des membres. Il n'est pas toujours possible de mesurer les avantages concrets obtenus dans les négociations avec le gouvernement. Toutefois, il est certain que l'ADC a réussi à engager un dialogue nécessaire avec le gouvernement et à y gagner du crédit.

Au cours des dernières années, l'ADC a établi plusieurs nouveaux programmes pour compléter ceux de vos sociétés provinciales et locales:

- le Centre de documentation

- le Comité professionnel mixte chargé de réviser les dispositions touchant les régimes d'épargne-retraite pour les travailleurs à leur compte.
- les CDSPI et les régimes d'assurance -REER
- Le programme de sensibilisation dentaire des mémoires adressés au gouvernement
 - perspectives dentaires — Commission Hall
 - impôt
 - droits de douane
 - alimentation
 - réforme des régimes de pension
- des publications
 - le Journal
 - des dépliants et des brochures sur la santé
 - le Système uniformisé de codification et la liste des services
 - le Code d'éthique
- la création d'un comité pour les dentistes salariés
- le programme d'agrément des matériaux dentaires
- la révision des dangers pour la santé au travail
- la recherche et l'enseignement dentaires

L'ADC travaille avec ardeur pour établir, maintenir et améliorer son réseau de communications à tous les niveaux.

J'ai eu le privilège de servir l'ADC et ses membres pour une brève période de 4½ années. En tant que nouvelle recrue, je peux répondre du zèle et de la ténacité des nombreux officiers et membres des conseils et comités qui se sont beaucoup dévoués au nom de tous les dentistes du pays.

Il me fera plaisir de répondre à toute question touchant les buts, les objectifs, la situation financière et les programmes de l'ADC et j'accueillerai volontiers toute critique constructive qui pourra contribuer à établir une meilleure et plus puissante association nationale.

*Le directeur général de l'ADC
et membre du Conseil éditorial,
Hubert Drouin.*

HEALTHCO/DDL INTRODUCES

Calcitite 2040 and Calcitite 4060

Calcitite 2040, a bone graft substitute or extender in the form of rounded HA particles for use in major and minor alveolar ridge augmentation.

Calcitite 4060, a finer-grained HA material for filling smaller defects such as periodontal lesions.

Use in minor ridge deficiencies: Calcitite 2040 particles mixed with sterile saline can be used alone for localized defects or minor alveolar ridge augmentation. The material is placed through conventional subperiosteal tunnelling techniques.

Use in major ridge deficiencies: Calcitite 2040 particles mixed with autogenous cancellous bone is used in major restorations of the alveolar ridge where height and width deficiencies exceed 5-6 mm. The mixture is inserted via subperiosteal tunnelling techniques or through a ridge crest incision.

Simplicity coupled with a conventional technique...

Incise and create subperiosteal tunnel

Load syringe for necessary procedure, insert Calcitite particles or mixture, and mold to achieve desired ridge height and width

Close with interrupted mattress sutures
(See detailed instructions enclosed with product.)



Rounded Calcitite™ particles

Simplicity coupled with a conventional technique...

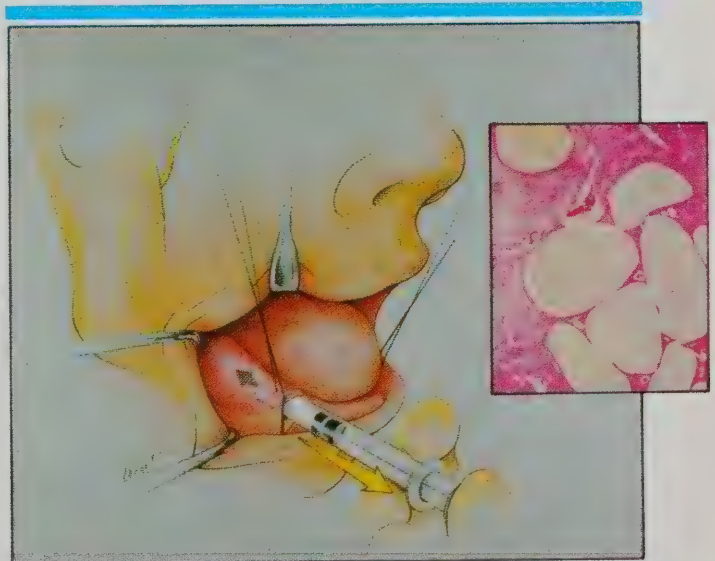
- Reflect and expose diseased area and treat with conventional methods
- Pack Calcitite 4060 particles in bloodfilled pocket
- Stabilize with sutures allowing adequate flap reflection and apply periodontal dressing
(See detailed instructions enclosed with product.)

The above information reflects accumulated data and experiences from the Departments of Oral and Maxillofacial Surgery and Removable Prosthodontics, Louisiana State University School of Dentistry, where several forms of hydroxylapatite have been used clinically as an augmentation material alone for minor ridge deficiencies and in combination with autogenous cancellous bone as a marrow extender for major ridge deficiencies.

For more details See Your Healthco Representative



Use in filling periodontal lesions: Calcitite 4060 particles are used to repair periodontal lesions and are placed after conventional curettage and debridement.



Calcitite 2040 Mandibular augmentation using Calcitite. Use of the syringe simplifies the procedure, allowing precise placement of particles. Inset is a low-magnification micrograph of bone tissue surrounding implanted Calcitite.

SPECIAL NOTE: Calcite's unique packaging allows the clinician to select the appropriate dosage to meet patient needs. (See Instructions for Use enclosed with product.) To avoid waste, Calcitite particles in opened ampuls may be resterilized by steam autoclaving for use in future procedures.

Introducing NutraSweet.[®] Your patients can't buy it, but they're gonna love it.

The first time your patients hear about NutraSweet[®], their natural inclination will be to want to run right out and buy some.

It's sweet like sugar, yet it sweetens with far fewer calories.

It's low calorie like saccharine, yet it has no bitter aftertaste.

But the sad fact is, your patients won't be able to buy a bag, box or bottle of NutraSweet anywhere.

NutraSweet is an ingredient.

They can only buy foods and beverages

that *contain* the sweetener NutraSweet.

The taste of sugar without the calories.

For the first time since calorie counting began, NutraSweet makes it possible for your patients to give up calories without compromising on one bit of taste.

This, in turn, means they may be more likely to stick to the diet you've recommended.

Foods made with NutraSweet taste like foods made with sugar. Yet, because NutraSweet is 200 times sweeter than sugar, much less is needed to do the job.

A 10 oz. bottle of cola sweetened with NutraSweet has about two calories, not the 20 calories it has with sugar. A pudding only 5 calories, not 150. In some products, calories may be reduced as much as 95%.

It's a totally new kind of sweetener.

NutraSweet, the brand name for aspartame (APM), isn't like any sweetener you've ever known.

Some of the innovative products using NutraSweet

Schweppes™ Sugar Free
Ginger Ale
Sugar Free 'C' plus Orange,™
Diet Dr Pepper™
Sprite,™ diet Coke,™ Fresca™
Pure Spring™ Ginger Ale,
Sugar-Free Hires™ Root Beer
Sugar-Free Pepsi Free™
Diet Rite™ Cola
Sugar-Free Shasta™
Sugar-Free SunCrest™
Weight Watchers™ Sugar-Free Soft Drinks
McCormicks dietetic cookies
Sweet 'N Low™ Drink Mixes
Nutri/System™ 2000 Dessert and Drink Mixes

It's a sweet nutritive substance made of protein components like those found naturally in most foods. A dipeptide made of aspartic acid and phenylalanine[†] (as the methyl ester).

So, except for the few calories, it's not like saccharine at all.

It has no bitter aftertaste. And unlike saccharine, the body metabolizes NutraSweet as naturally as it does any protein.

This makes NutraSweet especially welcome news for persons with diabetes.[†]

In fact, the Canadian Diabetes Association has found NutraSweet to be acceptable as a sweetener for products that may be included in diabetic meal plans.

It's not just for adults.

The average family of four eats about 100 pounds of sugar a year, much of it in foods that make up a surprisingly large part of nearly every family's diet. Consider this as it applies to dental health alone.

NutraSweet is like protein. Unlike sugar—a carbohydrate—research has shown NutraSweet to be non-cariogenic.

And since it's nutritive and makes things taste as good as it does, NutraSweet can become an important way to satisfy the "sweet tooth" of every family member. Children as well as adults.

But a number of innovative companies are making NutraSweet an important part of some of their products.

Right now, this growing list of products includes carbonated soft drinks, pre-sweetened cereals, crystal beverages, dessert mixes and the tabletop sweetener, Equal®.

To help your patients tell these products from the rest, companies are putting the NutraSweet name on packages and labels.



The average 12-year-old eats his own weight in sugar in a single year. Much of it in everyday foods like canned spaghetti.

Encourage your patients to look for it when they shop.

Because when they find it, they're gonna love what NutraSweet does for their diets. And you're gonna love what NutraSweet does for them.



PAAB
CCPP



A free taste of gum sweetened with NutraSweet.

Yes, I think my patients would like to try NutraSweet. Please send more information and professional samples of gumballs sweetened with NutraSweet to:

Name _____

Specialty _____

Address _____

City _____

Province _____ Postal Code _____

Send to: Searle Food Resources, Inc., P.O. Box 70,
Station D, Scarborough, Ontario M1R 4Y7.

NutraSweet®

Gumballs available while supplies last. 25 packets of gumballs per addressee. (Allow six weeks for delivery.)

CD

[†]Physicians counseling persons with phenylketonuria (PKU) or diabetes can write Searle Food Resources for additional information. **SEARLE** ©1983 G. D. Searle & Co.

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How they can love what they can't buy.

NutraSweet is only an ingredient.

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Doctor — Are you with us?



*David K. Peters, DDS
Chairman
CFDE Board of Trustees*

Dentists take pride in their distinctive opportunity to render, on an independent basis, a most worthwhile health service to a needy and concerned public. The nature of the practice of dentistry attracts people with an independent spirit and a commitment to excellence. The intrusion of bureaucracy in our every day lives, while essential for services beyond the scope of the private sector, is sometimes a source of annoyance when the provision of such services is so much more effectively achievable without public involvement.

Such a program is the support provided by the Canadian Fund for Dental Education. Its funds have helped revolutionize Canadian dental education by assisting in the establishment of an elite corps of skilled dental teachers. Its sponsorship of conferences has helped in the coordination and a dissemination of research and clinical knowledge, a function so essential in a country as large and diverse as Canada. Its assistance to students has encouraged excellence in clinical competence and motivated the acquisition of skills in research and communication in our dentists of the future.

While Canadian dental education is comparable with the best we know, it is idle complacency to think we have not much more still to accomplish. We must address the increasing problem of periodontal pathology in the dental health needs of our people. The dental care of our growing population of senior citizens requires our sincere concern. Knowledge in provision of care for the handicapped must be continually acquired, upgraded and disseminated. We

must study ways of removing the psychological, sociological and economic barriers which deprive too many of our people of the level of dental health care which in 20th century Canada should be their right — and this is a time when, we are told, there are young dentists eagerly waiting to do the job! In what better ways can our money be utilized?

This year, with resources marginally higher than ever before, the CFDE Trustees have granted \$61,000 in teacher/researcher training fellowships, \$46,000 for the support of student activities, \$14,000 for conferences, and \$15,000 for other educational projects. This magnificent contribution is possible because of the generosity of many Canadian dentists, individually and collectively, and by a business and industry sector which clearly indicates that public service is high among its priorities. We thank all who have contributed. We are grateful for the generosity of dentists who do contribute. The average size of personal contributions from dentists is \$61.85. We are honoured to have 57 contributors who gave \$200 and over and 273 who gave \$100 to \$199. How much more could we accomplish if we were to attract the support of a reasonable ratio of, say, fifty or sixty percent of our members instead of less than twenty?

The Canadian Fund for Dental Education is concerned about maintaining its traditional areas of support and about embarking on new avenues of service. Its Trustees, through careful management, are providing generous support for the enrichment of the profession and the lives of the public it serves. It regretfully cannot enlarge the scope of its activities and must decline some requests for the support it would like to give due to lack of funds.

Our favoured position as respected professionals, acquired during decades of devoted service and community leadership, must certainly prompt us to invest a little in the enhancement of dentistry's future. We take pride in our independence. CFDE IS OUR OWN SELF HELP OPPORTUNITY! OCTOBER IS CFDE MONTH! ARE YOU WITH US?

David K. Peters

Docteur, qu'en dites vous?



*Le président du Conseil
d'administration du FCED,
le Dr David K. Peters, dds*

Les dentistes se réjouissent de posséder le privilège distinctif d'offrir, sur une base autonome, des services médicaux très importants à un public qui en a besoin et qui se soucie de sa santé. La profession dentaire attire les gens qui apprécient l'indépendance tout en étant préoccupés d'atteindre l'excellence. L'ingérence de la bureaucratie dans la vie quotidienne, même si elle s'impose pour des services hors de la portée du secteur privé, constitue parfois un obstacle, surtout quand les services recherchés sont plus efficacement rendus sans l'intervention des institutions publiques.

Le Fonds canadien pour l'enseignement dentaire (FCED) vise justement à favoriser l'autonomie là où elle est souhaitable. Grâce aux subventions qu'il a accordées, le FCED a contribué à transformer complètement l'enseignement dentaire au Canada en appuyant la création d'un corps professoral élitare composé d'enseignants compétents. De plus, en parrainant des conférences, le FCED a aidé à coordonner la recherche dentaire et à répandre les connaissances pratiques acquises. Dans un pays aussi étendu et aux intérêts aussi diversifiés que le nôtre, cette fonction est essentielle. En aidant les étudiants, on a voulu les inciter à viser l'excellence dans l'exercice de leur profession et à devenir des experts dans la recherche et les communications, l'objectif étant de former le dentiste de demain.

Bien que l'enseignement dentaire au Canada se compare au meilleur qui soit, on aurait tort de croire qu'il peu à faire dans ce domaine. Il faut nous occuper du problème que posent de plus en plus les maladies parodontaires parmi les Canadiens. Et les gens âgés, dont le nombre augmente sans cesse, ont besoin de soins dentaires spéciaux qui méritent notre attention. Les handicapés aussi constituent un groupe à part et il convient de revoir et de mettre à jour continuellement les connaissances touchant la façon de les traiter. Par ailleurs, il faut étudier des moyens pour surmonter les obstacles psychologiques,

sociologiques et économiques qui privent trop de Canadiens de soins dentaires de qualité. Dans le Canada actuel, ce devrait être leur droit. Et en ce moment, dit-on, il y a un grand nombre de jeunes dentistes qui attendent impatientement de pouvoir se mettre à l'oeuvre. Comment pourrait-on mieux utiliser l'argent qui est à notre disposition?

Cette année, avec des ressources légèrement plus élevées que jamais auparavant, le FCED a octroyé 61 000\$ en bourses aux enseignants et aux chercheurs, 46 000\$ pour les activités étudiantes, 14 000\$ pour les conférences et 15 000\$ pour d'autres projets liés à l'enseignement. Ces octrois considérables ont été possibles grâce à la générosité d'un grand nombre de dentistes, seuls ou en groupe, ainsi que des secteurs commercial et industriel. Voilà qui prouve clairement que, pour eux, servir le public constitue une priorité majeure. Nous remercions tous ceux qui ont contribué au FCED, et spécialement les dentistes qui ont fait un don. La somme moyenne versée par chacun est de 61,85\$. On en compte 57 qui ont fait un don de 200\$ et plus, et 273 qui ont fait un don de 100\$ à 199\$. Cependant, nous pourrions faire beaucoup plus si nous pouvions recevoir l'appui d'un plus grand nombre de dentistes. Actuellement, moins de 20 pour cent contribuent au FCED et il serait raisonnable que cette moyenne passe à 50 ou 60 pour cent.

Le FCED vise à continuer à donner son appui aux catégories déjà établies, mais il aimerait en établir d'autres. Grâce à une administration consciencieuse, ses directeurs apportent un important appui dont le but est l'enrichissement de la profession et l'amélioration de la vie des gens qu'elle sert. Malheureusement, à cause d'une insuffisance de fonds, le FCED ne peut étendre la gamme de ses activités et doit parfois refuser l'aide qui lui est demandée.

Parce que nous jouissons d'une situation privilégiée en tant que professionnels respectés, — situation à laquelle nous sommes parvenus après avoir rendu, pendant plusieurs décennies, de bons services et avoir fait preuve de qualités de chef, — nous nous devons certes de promouvoir la dentisterie de l'avenir par une modeste contribution. Nous sommes fiers de notre autonomie. LE FCED EST UN MOYEN POUR NOUS AIDER NOUS-MÊMES. ET OCTOBRE EST LE MOIS DU FCED. Docteur, qu'en dites-vous? Pourrions-nous compter sur votre appui?

David K. Peters

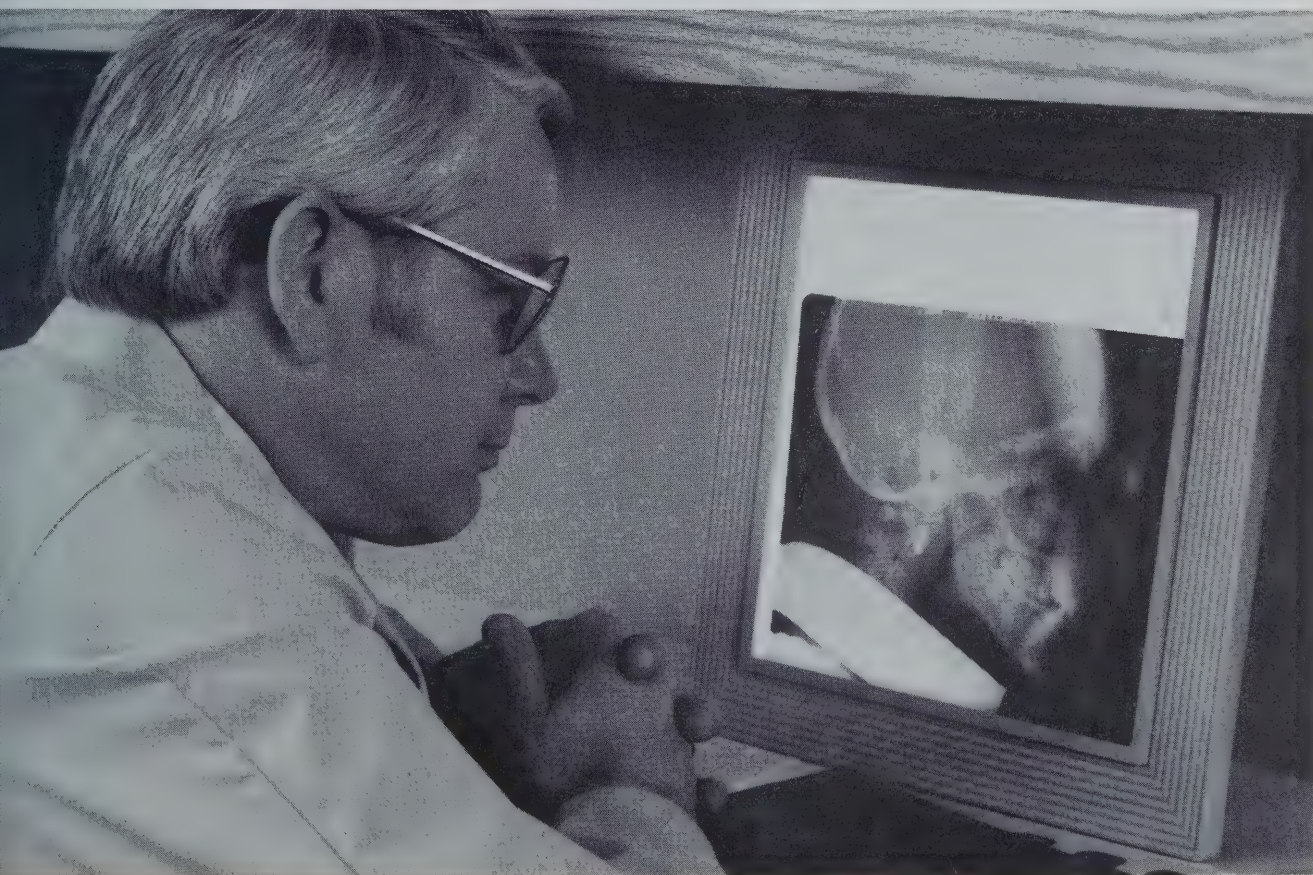
Less exposure and less cost with new Kodak rare earth extraoral products.

Rare earth imaging products—Kodak Lanex screens and Kodak ortho films—have already had major impact on medical radiography. Now they are available to reduce exposure and cost in extraoral dental imaging.

Exposure to patient and staff is reduced four to six times for both panoramic and cephalometric radiography—and the film costs less. Yet the image quality

is comparable with slower combinations. A Kodak Lanex regular screen with Kodak ortho G film gives superb contrast for panoramic work, and the same screen with Kodak ortho L film yields the extended latitude required for soft-tissue imaging in cephalometric radiography. The same combinations are available for special cassettes for use in TMJ radiography.

For details, write for the new Kodak dental x-ray products catalog, Kodak Canada Inc. Health Sciences Markets, 3500 Eglinton Avenue W. Toronto, Ontario, M6M 1V3



In the News

CDA Member Services

CDA representations before government agencies are a continuing activity on behalf of the profession

The Canadian Dental Association moved to Ottawa in 1977 to enable the Association to establish and maintain an active relationship with the federal government and its many departments. It was believed that such a move would facilitate the monitoring of government action and provide wide-open lines of communication.

The relocation of CDA's secretariat in Ottawa has proved to be a wise decision. All of these objectives are being realized.

Through its constant monitoring of the various departments' activities, House of Commons committee decisions, task force findings and Senate committee hearings, CDA has been able to play an important role in determining the direction of government policy.

The Association has gained not only its rightful identity but established a much needed credibility. This is evident by the many consultations with government officials which regularly and quietly take place "behind the scenes."

Assistance has been provided in a great number of areas in the past several years on such subject matter as nutrition, regulations on non-prescription analgesics, standards and guidelines in dental practice, disposal of drugs from dental offices and definitions and interpretations of tariffs.

Although such action in these areas of mutual interest is not usually highlighted and may not seem to provide immediate advantages to the members at large, it most certainly is a benefit in the area of credibility, when one considers the health care system today and the current state of controversy. The dental profession is gaining ground because of its non-

Series of Articles

Because it is unlikely that many non-CDA members are familiar with the whole range of vital CDA services to its membership, a series of six Journal articles outlining these services will be published over the next few months.

The articles will explain the functions of the various CDA councils and committees and also, the ongoing projects and proposed activities in the interests of the dental profession in Canada.

In actual fact, the series began in the September edition, when we published the feature on the CDA Library/Resource Centre and introduced readers to Librarian Trudi DiTrolio.

advocacy stance on such topics as extra billing and user fees.

One of the major objectives of the Association has been to raise the profile of dentistry in every possible direction. This has been accomplished in the past year by the appointment of a senior consultant on dentistry; the formation of a CDA review committee to assist the Medical Services Branch with the administration and policy necessary to organize and implement a program of dental care for Canada's Inuit and native population. A \$30,000 study on tariffs was commissioned by the Minister of Health and Welfare to study the effects of tariffs on dental materials.

Recently the CDA presented a brief

to the Deputy Minister of Health and Welfare regarding the Association's concern about the proposed health strategy.

The federal government is a huge bureaucracy. The Department of Health and Welfare is a major corporation in itself. To keep up to date with its activities and imminent legislation and the large number of officials requires constant attention. The same is true of the departments of Finance and Revenue which continue to challenge the livelihood of members of the dental profession through constant changes in an already complex system of taxation.

The role of the CDA in helping to draft legislation is a challenging one. In the past few years the Association has proceeded through a formative stage and will continue to play an important part in the future to assure the profession that legislation that could be detrimental to their welfare is monitored closely and challenged when it appears necessary.

Success is possible

It is not an easy task to change the course of federal political philosophy

But it is possible.

The best example of a successful lobbying campaign was realized by the CDA on October 27, 1982 when, as a result of a sustained campaign by a CDA committee, the federal government abandoned plans to tax the employers contributions to employees dental plans in Canada.

It appeared at times the government would not swerve from the proposal drafted almost a year earlier by the federal Department of Finance.

Management Company Audits

Of continuing concern to many

practitioners in Canada, is the subject of management company audits.

The CDA Taxation Committee is continuing to oppose Revenue Canada's interpretation of which management company expenses are eligible for a profit markup.

In the past, most professional management companies have applied up to 15 per cent profit margin to all expenses, in order to reach a reasonable profit level for the company. This formula was then accepted by Revenue Canada, but more recently, the new policy is to accept 15 per cent markup on only a limited number of expenses.

During initial meetings with Revenue Canada, the CDA Taxation Committee Chairman presented CDA's reasons why the new method of calculation is not reasonable. The presentation showed that "arm's-length" (i.e. non dentists or non dentists family-owned) management companies charged more than the amount being claimed as profit by dentists or dentist family-owned companies.

Recently, CDA was informed by Revenue Canada that the issue had been transferred from their Avoidance Division to the Technical Interpretation Division. It is possible this

body may be better able to respond to the CDA's specific basis of opposition.

Joint Professional Committee

The CDA had some time ago identified areas where the federal legislation or proposed legislation could alter the rights and privileges of practitioners in a number of professions.

As a result, a Joint Professional Committee was established by the CDA in 1978, to study such matters as potential methods of improving pre-tax retirement savings for those people in Canada operating small business (including professional practices).

The committee, now comprised of representatives from the Canadian Medical Association, the Canadian Bar Association, Canadian Institute of Chartered Accountants and the CDA, has set up the following objectives:

1. To review present taxation rules regulating the provision of retirement savings and incomes of small business operators and self-employed professionals in Canada, with a view to developing recommendations for the federal government on how the rules could be made more equitable.

2. To study and make recommendations to the federal government on specific terms related to:
 - a) levels of contributions under RRSP regulations
 - b) options at maturity of retirement on pension plans
 - c) past-service contributions.

The first project of this committee was an attempt to gain deductibility of "continuing education expenses" for professionals. Revenue Canada accepted more than 80 per cent of the recommendations presented.

This committee is currently in the process of preparing a position paper on pensions for presentation to the Minister of Finance.

In April of this year, the House of Commons announced the establishment of a Parliamentary Task Force on Pension Reform. Individuals and organizations have been invited to make written submissions to the Task Force regarding proposals for reform of the Canadian retirement income system contained in the Government of Canada's paper "Better Pensions for Canadians". The Joint Professional Committee has prepared its brief in this regard.

The foresight involved in the move to Ottawa continues to pay dividends for the dental profession in Canada.

Future geriatric treatment — posing mounting problems

An American symposium on "Clinical Geriatric Dentistry" which was held last summer, predicted a rise in the incidence of periodontal disease among older Americans.

The prediction seemed to surprise many of the 150 participants in the symposium, the first of its kind ever held. Some factors cited in contributing to this rise in periodontal disease, include an apathetic attitude towards oral health, limited finances and poor nutrition.

The situation in Canada is not

much brighter for elderly dental patients. By the year 2000, some 12 per cent of the Canadian population will be receiving the old age pension. In the U.S., by the year 2040, 67 million people will be over the age of 65.

Some additional problems that the elderly dental patient may suffer from include root caries, missing teeth and ill fitting dentures. There is often a problem with access to dental offices, because of stairs for example.

The U.S. symposium touched on

these problems, but programs such as Senior Dent and others, available for seniors in the U.S., "may not be enough to reach the vastly underserved population," said Dr. Sidney Epstein, of the University of California at San Francisco, dental school, one of the symposium's organizers.

According to the Veteran's Administration's comprehensive normative aging study, which began in 1968, periodontitis has been proven to be the most prevalent disease in America's elderly.

President of Japan Dental Association visits president of the CDA in Ottawa

Dr. Kazuo Yamazaki, President of the Japan Dental Association, paid a courtesy call to the Canadian Dental Association President, Dr. William Thompson, at CDA headquarters in Ottawa in mid-August in the course of a tour of Pacific rim countries to inspire interest in attending the Federation Dentaire Internationale (FDI) Congress in Tokyo, Japan, November 14-20.

Dr. Yamazaki, who is president of the organizing committee for the 71st annual World Dental Congress of the FDI, was accompanied by Dr. Katsuo Tsurumaki, Director of the Japan Dental Association and deputy chairman of the FDI Congress organizing committee.

Dr. Takayoshi Igarashi, Professor and Chairman of the Crown and Bridge Prosthodontics Department of Nihon University School of Dentistry, Tokyo, acted as interpreter for the group.

During the course of a cordial discussion in which the Japanese visitors showed a keen interest in the services provided by CDA, and the interests and concerns of Canadian dentistry, Dr. Yamazaki presented a beautiful framed ceramic work of Japanese art to Dr. Thompson as a gift from the JDA to the CDA.

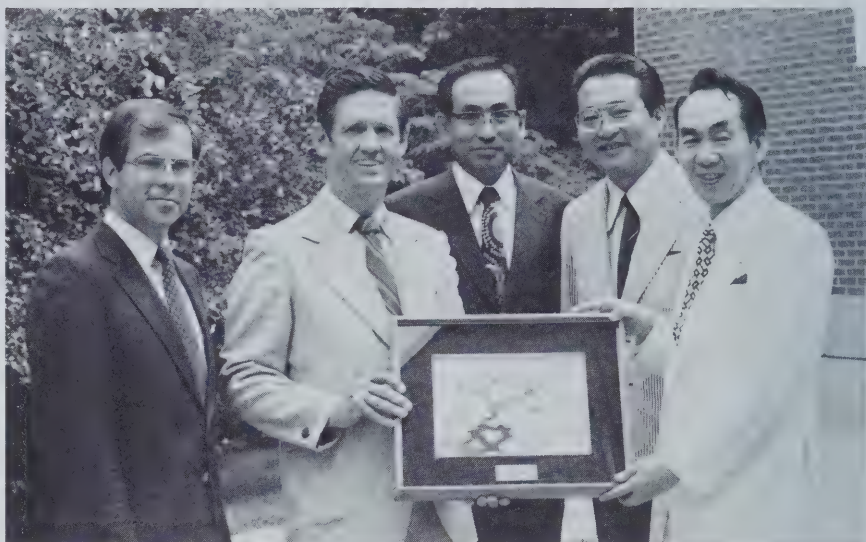
Dr. Thompson in turn presented a copy of the bilingual volume "Treasures of Canada", with descriptive text and illustrations of some of the most attractive natural features of Canada.

Many dental schools

Dr. Igarashi observed that there are 29 dental schools in Japan, graduating about 3,000 dentists each year.

Asked if there was a dental manpower problem in Japan Dr. Igarashi said "Oh yes. The universities have been asked to reduce enrolment, and this is now being done."

CDA President Dr. William Thompson



CDA Past-President Dr. William R. Thompson (second from left), receives a beautiful piece of Japanese ceramic art from the President of the Japan Dental Association, Dr. Kazuo Yamazaki (white suit). CDA's Executive Director Hubert Drouin is on the left. Dr. Katsuo Tsurumaki, deputy, chairman of the organizing committee for the 1983 World Congress of the FDI in Tokyo, Japan, centre, and to his left, Dr. Takayoshi Igarashi, interpreter.

son noted at the end of the conversation that "they have all the same problems we have."

The extensive tour by the Japanese dignitaries included stops in Singapore, Indonesia, Korea, Hong Kong, Hawaii, Canada and the United States.

From Ottawa, the delegation flew to Chicago, to visit officials of the American Dental Association.

Dr. Tsurumaki said the FDI organizing committee expects a total attendance at the Congress of about 18,000 and that about 3,000 of these will be foreign visitors.

CDA Retirement Savings Plan

Unit values of the Canadian Dental Association's Retirement Savings Plan stood as follows on August 31, 1983.

<i>Common Stock Fund</i>	\$74.74746
<i>Fixed Income Fund</i>	\$36.05397
<i>Guaranteed Fund</i>	\$26.66026
<i>Balanced Fund</i>	\$15.10543

Total assets (market value) of the plan were \$37,386,323.

The previous month's figures, as of July 31, 1983, stood as follows:

<i>Common Stock Fund</i>	\$73.66969
<i>Fixed Income Fund</i>	\$36.05386
<i>Guaranteed Fund</i>	\$26.50090

Balanced Fund \$15.01886

Total assets (market value) of the plan were \$37,160,478.

For further information write to: Canadian Dental Service Plans Inc., Ste. 600, 2 Lansing Square, Willowdale, Ontario M2J 4Z3 or call the central information services of CDSPI at 1-800-268-5418 (toll free number for Western Canada, Atlantic Canada and Ontario for Code 807 only), 1-800-268-3411 (toll free number for Quebec and Ontario except Code 807), and 497-7117 (Metro Toronto area).

Cours de Sédation consciente
Université de Montréal
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FRAIS D'INSCRIPTION
Dentiste : \$325.00
Pratique d'un an : \$275.00
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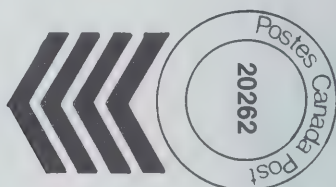
Course in conscious sedation
University of Montreal
Fri., sat., sun., nov. 18, 19, 20, 1983
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Refresher course : \$150.00
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VEUILLEZ NOTER

La Société Canadienne d'Analgésie tiendra le 18-19-20 novembre, 1983 à l'Université de Montréal un cours sur l'utilisation de la sédation consciente en pratique dentaire.

Veuillez faire parvenir votre carte d'inscription (ci-haut annexée) le plus-tôt possible.

PLEASE NOTE

The Canadian Analgesia Society will hold at the University of Montreal a course on uses of conscious sedation in dentistry on November 18-19-20, 1983.

Return the attached card to ensure your registration as soon as possible.

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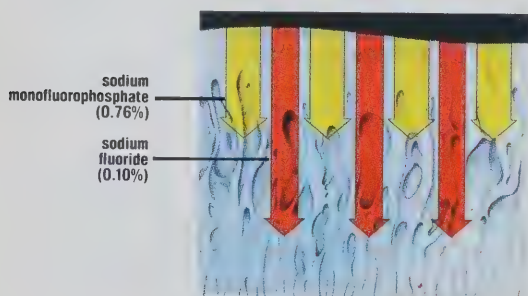
How Colgate's two fluoride formula achieves more complete remineralization resulting in nearly double the cavity protection of a single fluoride formula.*

A major role of fluoride in cavity prevention is to accelerate the process by which demineralized enamel is rebuilt (1-4). This reverses white spot lesions which would otherwise become cavities.

Today's Colgate is the first toothpaste with two fluorides—sodium monofluorophosphate at 0.76% and sodium fluoride at 0.10%. Their differing molecular structures mean these fluorides work at different levels in tooth enamel. The result, at these concentrations, is more complete remineralization of white spot lesions than either can achieve alone.

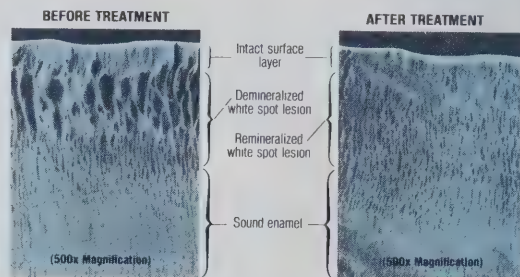
Why these two fluorides remineralize more completely.

Fluorides reach white spot lesions by penetrating enamel through the interprismatic spaces. Sodium monofluorophosphate, being a larger molecule, reacts with enamel primarily at the surface of a white spot lesion. Sodium fluoride, a smaller molecule, penetrates deeper into the lesion.



Because they work at different levels the two fluorides complement each other, enhancing remineralization over a greater area of the lesion than a single fluoride* alone.

This complementary action means more fluoride is available to enhance remineralization over a greater area of the lesion, than is provided by either fluoride alone (5,6).



This more complete remineralization has been demonstrated in laboratory studies (7), and can be seen in the photomicrographs above.

Clinical studies show nearly double the cavity reduction.

Colgate with this two fluoride concept was tested in a three year clinical study (8). The results—Colgate's two fluoride formula provided 27.0% reduction in new caries versus 13.8% for the single fluoride positive control* (DMFT).

Conclusion.

Colgate's two fluoride formula provides superior cavity protection to a single fluoride formula*: Only Today's Colgate has a two fluoride formula.

When you recommend Colgate you're recommending an innovative product—offering advanced and clinically tested cavity protection.

*Sodium monofluorophosphate (0.76%)

REFERENCES

1. Silverstone, L.M., Proc. Roy. Soc. Med., **65**, 906, 1972.
2. Koulourides, T., et al, Ann. N.Y. Acad. Sci., **131**, 771-775, 1965.
3. Von Der Fehr, F.R., et al, Caries Res., **4**, 131-148, 1970.
4. Levine, R.S., Brit. Dent. J., **138**, 249-253, 1975.
5. Slater, P.J., et al, Abstract No. 72, ORCA Conference, July 1982, Annapolis.
6. Hayes, H., et al, J. Dent. Res., **61**(4), 541, 1982.
7. Harvey, K., et al, J. Dent. Res., **61**, 243, 1982.
8. Hodge, H.C., et al, Brit. Dent. J., **148**, 201-204, 1980.



* Colgate Toothpaste contains sodium monofluorophosphate and sodium fluoride which are, in our opinion, effective decay preventive agents and are of significant value when used in a conscientiously applied program of oral hygiene and regular professional care. Canadian Dental Association

PARTNERS IN PREVENTIVE DENTISTRY.

McAllister extends aid program to Peru

Bob McAllister, the former Lion's Club president from Azilda, Ontario, who is co-ordinating efforts to get dental equipment to the Caribbean, has extended his highly successful program into Peru, at the request of the president of that country.

Mr. McAllister, who recently received the Order of Canada, largely because of his efforts on these projects, told the Journal that his appeals for equipment made last year through the CDA Journal, resulted in many donations.

"Donations of old dental equipment came from as far away as Amsterdam," he said. "The University of Toronto, Faculty of Dentistry, was most generous with equipment, most of it going to the program in Peru."

Mr. McAllister said that currently 30 dental units have been shipped to Peru. There is a need for at least 60 units in that country. A dental unit includes the drill, light, and instruments, with dental chairs shipped separately.

"There is also a great need for compressors and old x-ray machines, in



Bob McAllister was honoured earlier this year for his work in Peru and the Caribbean at "Bob McAllister Night" held in Azilda, Ontario, by the local Lion's Club, of which McAllister is a former President. In attendance were: (L-R) Claude Landry, Azilda Lion's Club President, Hon. Judy Erola, Minister of State for Mines (now Minister for Consumer Affairs), Bob McAllister, Juan Pablo Fernandini, Peruvian Ambassador, and Marcel Gagnon, past-President of the Azilda Lion's Club.

Photo: Courtesy Government House, Ottawa

Peru," he said. "Eventually we hope to get a small bus and equip it for use as a mobile dental clinic, similar to the one we have in the West Indies."

All programs are carried out with the co-operation of the government in the countries involved, the Canadian International Development Agency

(CIDA) and local area Lions Clubs.

In Lima, the largest city in Peru, several small dental units have already been set up in medical clinics and Mr. McAllister is currently in Peru with CIDA advisors, showing Lima dentists how to correctly install and operate the Canadian equipment.

New Brunswick dental program is restored

The New Brunswick dental program for social service patients has been restored.

The provincial social service ministry, which reinstated the program effective September 1, had cut it earlier this year as an economy measure. The program was given back following extensive protests by the province's 195 dentists and the New Brunswick Dental Society.

Dr. Jack Thompson, Executive Director of the Society, said the dental community is "ecstatic" over the reinstatement of the program.

Officials from the New Brunswick Dental Society including president, Dr. Robert Turcotte, and Dr. Thompson met with Premier Richard Hatfield late last summer, urging reconsideration of the province's stand on cutting dental services to welfare recipients.

"We also made a presentation to Nancy Clark Teed, Minister of Social Services, Acting Treasury Board Chairman, Brenda Robertson and Finance Minister John Baxter and it was this presentation that made the difference," said Dr. Thompson. "We also directly attribute the reinstatement

of this dental program to the loud protests of the New Brunswick practitioners."

The program, which began in 1967, covers treatment for children to age 18, including preventive, restorative and diagnostic dentistry, some fillings and root canal work (on an individual basis). Emergency service for those over the age of 18 will continue to be provided under the program.

"Approximately 6,000 children who would have been affected by the cuts, will continue to receive comprehensive dental care," said Dr. Thompson.

Academy of General Dentistry names first Canadian President

Dr. W. Robert Patrick of Trenton, Ontario, became the first Canadian President of the Academy of General Dentistry at that body's annual meeting in Toronto, July 16-20.

A former mayor of Trenton, Dr. Patrick has served as a governor of the Trenton Memorial Hospital, past chairman of both the county and city planning boards and chairman of the city's finance and public works committees. He was also a member of the county executive committee.

He is a past president of the Trenton Rotary Club and a former director of the Chamber of Commerce.

Dr. Patrick was AGD's vice president in 1981 and president-elect in 1982. He also served two consecutive two-year terms as secretary of the Academy since 1977, and was a member of AGD's budget and finance committees. He is a past AGD na-



Dr. W. Robert Patrick

tional director for Eastern Canada and was chairman of the 1977 AGD Annual Meeting held in Montréal.

He is a Fellow of the Academy of General Dentistry and the International College of Dentists.

A DDS graduate of the University of Toronto Faculty of Dentistry, Dr. Patrick maintains a private practice in Trenton, Ont.

Another Canadian honor

Another Canadian was honored at the AGD Convention by being invited to present the prestigious Albert L. Knab Memorial Lecture.

Ronald E. Jordan, DDS, MSD, Chairman of the Department of Restorative Dentistry, University of Western Ontario, London, Ont., and chief examiner for the National Dental Examining Board, was the speaker.

He spoke on the subject: "Composite Resin Restorations: A Materials/Technique Update."

County dental director tough on neglectful parents

The new dental director in the southwestern Ontario county of Simcoe has said he will take a tough stand against parents who neglect their children's dental health.

Dr. Terry Hicks, who assumed the post of dental director of the Simcoe County Health Unit on August 1, said he is aware his tactics could ruffle some feathers.

"We have to make people understand that there are dental health conditions in children that, if left untreated, could be considered neglect under the Child Welfare Act. We professionals have a responsibility to ensure that these conditions are treated and we have a legal responsibility to

report them," he said in an interview following his appointment.

Dr. Hicks said his major concern will be providing care for children placed at risk because of dental problems. "We have to focus on preventing health problems arising rather than after they surface," he said.

While he stressed that the county health unit does not want to become involved in enforcement, he did recommend working with families before problems develop.

"While society has developed a sense of responsibility towards children being fed and clothed properly or receiving proper medical attention,

the attitude isn't developing as quickly in the dental field.

"For some reason society hasn't accepted that children can be equally compromised in a dental situation," he said. "An abscess in the mouth isn't considered as important as an abscess somewhere else. Rather than being neglect, it's often just that parents don't understand."

Dr. Hicks, who was director of the Sudbury district health unit for nine years, emphasized preventive care in that position as well. During his tenure in Sudbury, Dr. Hicks started a fluoride mouth-rinse program for children and a dental health education course in area elementary schools.

A Canadian dentist in Saudi Arabia

by

A Ruprecht, DDS, MScD. (C)

It is early in the morning. The sun is slowly rising over the edge of the desert and as the moazin calls the faithful to prayer another day comes to life in Saudi Arabia, the heartland of Islam.

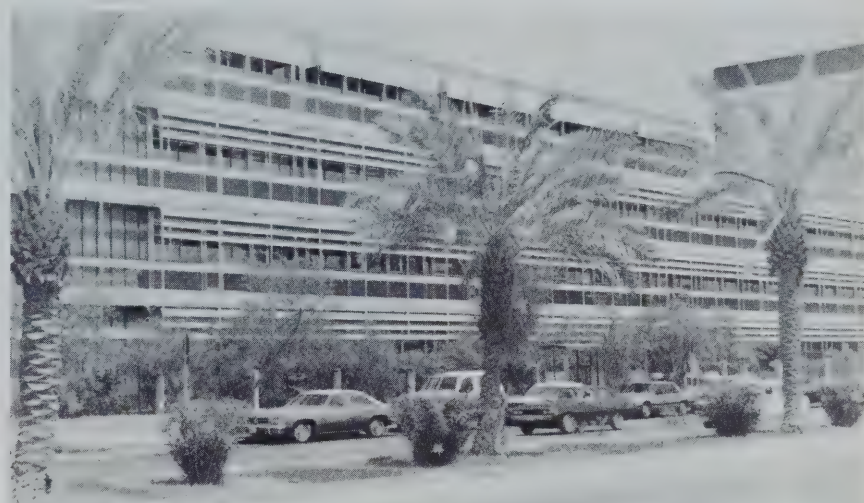
It is 4:30 in the morning on Saturday. The Thursday — Friday weekend has ended. It is the start of another week. In another hour and a quarter we must get up so that Jason can catch his bus at 6:45 for the forty-five minute ride to the Saudi Arabian International School, Riyadh, located in Khurais. Barbara is picked up at 6:45 for her forty mile ride into the desert to the King Abdulaziz Military Academy building site.

At 7:00 I leave for the College of Dentistry, King Saud University. As I drive in, it is bright and sunny with no clouds in the sky. Traffic is still light because the King and the major government departments are in the summer capital at Taif. They will not return to Riyadh until after Hajj. I am thinking of the questions that I was asked during my visit to Canada last summer and of those I receive in the mail periodically about life in Saudi Arabia and at the College.

One dental college

The kingdom of Saudi Arabia has only one dental college at present. Located in Riyadh, the capital, with population of about 750,000 — 1,000,000 people, the College of Dentistry is part of King Saud University. The University has colleges of medicine, nursing and pharmacy in the health sciences, as well as most other colleges found at other major universities. The College of Dentistry is new, having just this past March graduated its first class of seven males.

Because of traditional Islamic val-



The dental college of the King Saud University is a modern structure located in Riyadh, the capital of Saudi Arabia.

ues, education in Saudi Arabia is separate for males and females. There are thus actually two colleges of dentistry, one male, one female in the building. The current senior female class is entering the "fourth" year. When full class sizes are reached there will be twenty and twenty in each year.

Males, females, separated

Males and females have their lectures separately, either by having the instructor lecture to one directly and the other simultaneously via closed circuit TV, or by having each lecture given twice.

There are separate laboratories and clinics for male and female students. Both, however, can see male and female patients.

Some female students wear veils, most do not while in the college. The curriculum is based on the North American style. Students enter the college after one and a half years (three semesters) of pre-dental education in a combined pre-health sciences course wherein students hoping to enter dentistry, medicine or pharmacy take the traditional sciences of phys-

ics, biology, chemistry and mathematics and one semester of intensive English. Health science courses are taught solely in English except for Islamic culture and Arabic language courses. The dental curriculum itself spans nine semesters (four and one half years) during which the usual basic dental sciences, pre-clinical and clinical courses are given.

Students also have a variety of university required Islamic and Arabic courses, and dental and non-dental electives, from which they must take a set number in each category.

Students are on a credit hour system so that failure in any course means repeating that course but not the whole year.

Male students have the usual extracurricular sports activities with college and university teams and competitions. Soccer is one of the major sporting activities, although there are new and magnificent facilities for other sports from tennis through track and field. Swimming and basketball are available as well.

The university provides housing for

Continued on next page

students and pays a monthly stipend. Food and books are subsidized.

Like Canadian universities, the dental college admits only Nationals into its undergraduate program although exceptions could be made. Admission is based primarily on academic achievement.

The College has modern facilities, housed in a building that is only a few years old. Most of the equipment in both the preclinical and clinical setting is German and very modern.

The clinic has individual cubicles for each student. All clinical faculty must have graduate training in their specialty and spend some time in clinical practice as well as teaching and research. For the clinical practice, faculty receive extra compensation.

The university and college actively support research through various research councils which provide funding to successful applicants. I am currently investigating the incidence of some 20 dental abnormalities in college patients some of which I hope to be able to publish in the Journal in the future. Attendance and presentation of papers at scientific conferences are also actively encouraged.

No theatres

Life in Riyadh is considerably different from life in most Western cities. There are no public theatres, cinemas or nightclubs. Alcohol is not allowed into Saudi Arabia. Social activities are more private in the form of entertaining among friends. When out shopping one must dress conservatively — no shorts for men, women must cover shoulders and wear long dresses.

Only men are allowed to drive so that I must chauffeur Barbara everywhere. We and our friends will often go to the souks (markets, bazaars) to shop or just window shop, although most stalls have no windows. We may also visit friends at other compounds not part of the university or drive out into the surrounding country to see some of the more interesting natural or historical sites.

Although Riyadh is in the middle of the desert, it is not surrounded



The remains of the old royal palace dominate the rest of Daraiya, the former Capital, now being restored by the Ministry of Education.

by sand. The desert is clay and hard packed but very dusty. However, north of Riyadh, there is a sand desert — the great An Nafud desert. In the southern part of Saudi Arabia is the Rub Al Khali, the empty quarter. This is one of the largest sand deserts in the world. These two are joined by fingers of sand to the east and west of Riyadh. We have visited the red sand dunes east of Riyadh near Mesehamiah and picnicked among the creeping mountains of sand.

Another interesting site to see near

Riyadh is the former capital city of Daria'ya where a series of more traditional buildings stand above Wadi Hanefah.

I hope that this will provide a brief glimpse into life in Saudi Arabia, or more specifically Riyadh since, like Canada, one can no more lump life in Jeddah, Riyadh or Dharan/Dammam together as being the same than one could life in Halifax, Quebec City, Saskatoon and Vancouver. Perhaps I can provide more specific information in a future article. Until then, Maa — as — Salaama.

Obituaries / Nécrologies

BAYNE, Alfred: Dr. Bayne graduated from North Pacific College in Oregon in 1918, and was a pioneer in dentistry in British Columbia for many years. He was born in 1890.

BOUCHARD, Hillaire: Né en 1933 et diplômé de l'Université de Montréal en 1959, le Dr Bouchard exerçait à Pointe-Claire, au Québec.

DESLAURIERS, Maurice: Né en 1925 et diplômé de l'Université de Montréal en 1950, le Dr Deslauriers exerçait à Montréal.

WALKER, John J.: Dr. Walker, who was born in Toronto in 1925, graduated from the University of Toronto in 1952. He retired from the Canadian Forces Dental Service in 1974. He was a resident of Thornhill, Ontario, at the time of his death.

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Briefly —

At the Nova Scotia Dental Association's recent annual meeting, Dr. Mervyn Creighton of Kentville, was installed as president. Dr. George Zwicker, of Halifax, became president-elect for 1983-84.

Mr. G.V. Pamenter continues as Executive Director, while Dr. S.G. Bagnall remains as Registrar of the Provincial Dental Board of Nova Scotia.

Keynote speaker at the annual meeting was Dr. W.R. Thompson, CDA President, who spoke about the Canadian Dental Association and the present problems faced by the profession in Canada.

Other topics of debate at the meeting included government sponsored dental programs, dental manpower and institutional advertising. The membership voted to accept previously discussed advertising standards at the meeting.

Dental hygienists in the Montréal area were involved in a different kind of hygiene awareness program during the past summer.

They arranged a program of visiting many of the Metro Montréal region's playgrounds and park wading pools, instructing young children and their parents in the development of good dental hygiene habits.

They also made an effort to demystify and allay fears of visits to the dentist's office.

In the course of their visits, the hygienists answered many questions the children posed about the proper methods of dental hygiene and dental procedures.

Ontario's Ministry of Health has appointed a co-ordinator for its health professions legislation review team.

Alan M. Schwartz, a Toronto lawyer with the firm of Fogler, Rubinoff, will co-ordinate a review team for the next two years. The team will make recommendations to Health Minister Keith Norton about which health professions should be regulated by statute and how statutes governing the professions should be updated.

Mr. Schwartz, who is experienced in the formulating of public policy, will be assisted in the review by James D. Fisher and Morrey M. Ewing of Canada Consulting Group Inc., Toronto.

Canada Consulting Group Inc. is experienced in providing public policy advice to ministries, agencies, commissions and select committees of both the federal and the provincial governments.

The Standards Council of Canada, the national coordinating agency for voluntary standardization, has accredited the Canadian Standards Association (CSA) as a certification organization within the National Standards System of Canada.

The CSA has been accredited since 1974, as a standards-writing organization with the System, which is a federation of independent Canadian organizations involved in standards-related activities. Through this recent accreditation, however, the organization is now recognized for its competence in certification — the procedure by which a product, service, facility or system is deemed to be in conformity with specific standards or other recognized documents. Under the terms of accreditation, CSA is now recognized by the Council to carry out certification in a broad range of subjects.

Some of these subject areas are:

Electrical and electronic products, processes and services, from Christmas decorations to major components of nuclear power plants.

Health care technologies, including anaesthetic equipment and child-resistant drug packaging.

Recreational and occupational health and safety, covering such

products as ladders, chainsaws, hockey helmets and bicycles.

The CSA certification mark appears on more than half a billion products sold in Canada each year.

CDSPI would like to bring to the attention of 1983 dentistry graduates that it is still not too late to apply for the 1983 no-cost Graduate Insurance Package offered by the CDA.

If you are a 1983 graduate and act now, you may obtain free coverage until December 31 and gain entry into the Canadian Dentists' Insurance Program with no medical evidence required.

Contact CDSPI for information and an application.

1-800-268-5418 Western Canada, Atlantic Canada, Ontario Area Code 807

1-800-268-3411 Québec and Ontario, except Area Code 807
497-7117 Metro Toronto.

A caution for parents recently came to light in the Manitoba Dental Association Bulletin regarding mouthwashes.

Many popular mouthwashes, with or without fluoride, such as Listerine, Listermint with fluoride and Scope contain some percentage of alcohol. Many of these are coloured attractively and are generally within easy reach of all family members, including small children. The attractive colouring and accessibility make it a not uncommon occurrence for small children to accidentally drink such preparations.

Many parents, according to the Bulletin, are not aware of the high percentage of alcohol in common mouthwashes. Of the three brands, Listerine contains 23 per cent alcohol, Listermint with fluoride contains 14 per cent alcohol by volume and, while Scope lists alcohol as an ingredient, the exact percentage was not available.

The Association Bulletin also recommended that dental practitioners differentiate clearly between a "mouthwash" with fluoride and a fluoride mouthrinse, when giving patients and

parents information on the safe use of such caries preventive preparations.

The Alberta Dental Association held its 1983 annual meeting in conjunction with the conjoint convention of the Association and the Western Canada Dental Society, in Jasper, Alberta.

Effective July 1, 1983, Dr. G. S. (Stu) Foster took over as President of the Alberta Dental Association. He is from Calgary, Alberta. Dr. R. D. (Bob) Kinniburgh, of Lethbridge, Alberta, is the past-President of the Association.

A new Vice-President was also elected at the meeting. He is Dr. Bryun Sigfstead of Edmonton, Alberta. Dr. B. P. Martinello remains as Executive Director of the Association.

Also at that conjoint convention, two long-time members of the Association were awarded engraved silver trays for 40 years of dental practice in the province. These were Drs. K. M. Gordon and Max J. Lipkind. Both graduated from the University of Alberta, Faculty of Dentistry in 1943. Dr. Gordon conducted private practice in Edmonton before taking the post as director of the Dental Clinic at the University of Alberta Hospital in 1972. Dr. Lipkind practices in Calgary, and is a Fellow of both the American and the International College of Dentists.

The British Columbia Society of Prosthodontists recently elected a new slate of officers.

Succeeding Dr. Basil Plumb as president, is Dr. Harry Gelfant. Dr. Dennis Nimchuk is the new vice-president and Dr. Bernard Legatto is the secretary-treasurer.

The 22nd annual International Dental Show, which took place in Munich, Germany, May 9-14, 1983, was considered a success by the organizers, the Association of the German Dental Industry.

More than 4,000 dentists, dental technicians, dental assistants and trade representatives visited the show. There were 507 exhibitors from 23 countries in attendance.

Included was a high percentage of overseas registrants, in both the commercial and scientific categories. The scientists represented not only the field of dentistry, but related fields such as chemistry, microbiology, bacteriology and physics.

Most of the attendees, however, were dental practitioners and dental technicians.

Dentists in the United States were praised recently for keeping their share of health care costs down.

In a speech at the opening of hearings on health care inflation, Senator Orrin Hatch of Utah, said "By emphasizing less expensive preventive care and requiring patient financial participation in prepaid dental plans, the cost of dental services has risen at a rate far below other segments of the health care sector."

Senator Hatch was speaking to the Labour and Human Resources Committee of the U.S. Senate.

Smile: your patients' TMJ problems could be shown on videotape.

Research conducted by Dr. James R. McDonald of Phoenix, Arizona, documented on videotape, showed that radiography can perform the same function in diagnosing severe TMJ problems as the old method of injecting dye directly into the jaw of the patient, a painful process. Radiography as a diagnostic tool in treating temporomandibular joint dysfunction was verified using a newly developed colour video camera.

"My colleagues and I conducted extensive post-mortem research and found radiography pinpointed the jaw dysfunction as clearly as the old dye injection method. To document this find and verify that the radiograph reading we saw 'live' was in fact accurate, we used the video equipment," said Dr. McDonald.

The colour camera is a high performance 2/3 inch, single tube model with microprocessor controls and built-in bias lamp to help attain 300 line resolution with better than 48dB signal-to-noise ratio. Weighing less than seven pounds, the camera has a reduced power consumption of 11 watts, built-in colour bar generator and a full warning system that reduces the possibilities of recording failures.

The American Dental Association's Council on Dental Therapeutics recently approved plans for a drug information program.

The drugs that will be considered for the program are those that cause problems because the patient has difficulty understanding the purpose of the drug or the side effects.

Drug information sheets will be published and will present information to the patient about the proper use of prescription and non prescription drugs and possible side effects. Dentists will be able to purchase these information sheets for distribution to patients from the American Dental Association.

The American Medical Association started a similar program in 1982, but the ADA Council noted that such a program which provided information to a physician's patients might not be useful to the dental patient, since that same drug may have a different application in dentistry.

American dentists were congratulated recently on their conduct toward their patients during the recent recession in the U.S.

Dr. Burton H. Press, then President of the American Dental Association, told practitioners that he was proud of the way some dentists had extended increased amounts of credit to their patients of record who had lost their jobs during the economic crisis.

"I am very proud of your actions and feel the entire profession should be made aware of them," he said.

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Complete clinical information on
page 700

The computer in today's dental practice — certainly part of tomorrow

A discussion of the use of a computer in a small dental practice

By: Dr. W.F. Shaw
Dr. A.G. Randolph

Subliminally, every dentist with a busy practice knows that he or she should computerize their record-keeping but can't summarize why. What's more, the computer has a certain mystique that intimidates a dentist whose only contact with a computer has been watching a reservation clerk make out his ticket. Because few dentists know how to use a typewriter, or a multifunctional calculator, the acquisition of such a complex instrument seems awesome.

As well, with so many kinds of computers on the market, each appearing more comprehensive and less costly than the others, making a decision to computerize is confused even further with a concern not to choose the wrong product. The one selected might soon be replaced with a better, simpler, and less costly product that could be available at the next dental convention.

The intent of this article is to try to put into perspective how computerizing your records can help manage your practice. The authors of this article have computerized their office procedures. They and their staff are more than pleased with the results achieved.

WHAT DOES the COMPUTER DO?

Patient Records

Obviously, the first role of the computer is to keep the patient data including name, address, telephone number, both business and residence, as well as other specific data identifying the patient, such as marital status, whether or not the patient has dental insurance, whether there are any important allergies or sensitivities, or for



Co-authors William Shaw (left) and Arnold Randolph and their computer-equipped reception desk.

any other information considered important.

This doesn't eliminate the patient's chart, which remains a vital instrument, but it does enable the dentist to use a numerical system, which has a multitude of advantages over alphabetical chart filing systems. In converting to a computer based record keeping system, we found it advisable to change from an alphabetical system to a colour-coded numerical system with the 8½ x 11 inch file folder.

Hospitals and other major institutions have long since converted to colour-coded numerical charts, such as those made by Acme-Seeley. The ease of locating and refiling is obvious, but there are other advantages,

such as storage predictability, the possibility of aging dormant charts, the lower cost and the ease of replacement of damaged or worn file folders. The disadvantage is that there must be some reference for the relating of the name of the patient to the chart number. Roller indexes can do this in manual systems, but the computer can do this faster and better. To be able to move from alphabetical to numerical filing is a major advantage of computerization.

There is the additional advantage of being able to garner information without drawing the chart. Using the first three letters of the surname, and the first letter of the given name, the computer terminal can be asked to

Continued on next page

locate the patient in the stored patient information memory. For example, in our system, with the patient visit program activated, Mary Jones can be retrieved by typing JONM into the terminal, and pressing the return key. The computer will then show the patients with these identifying letters such as Mike Jonathan, Michel Joncas, etc, with each touch of the return key. When Mary Jones is located, the T key is touched, (T for true), and the patient record is retrieved.

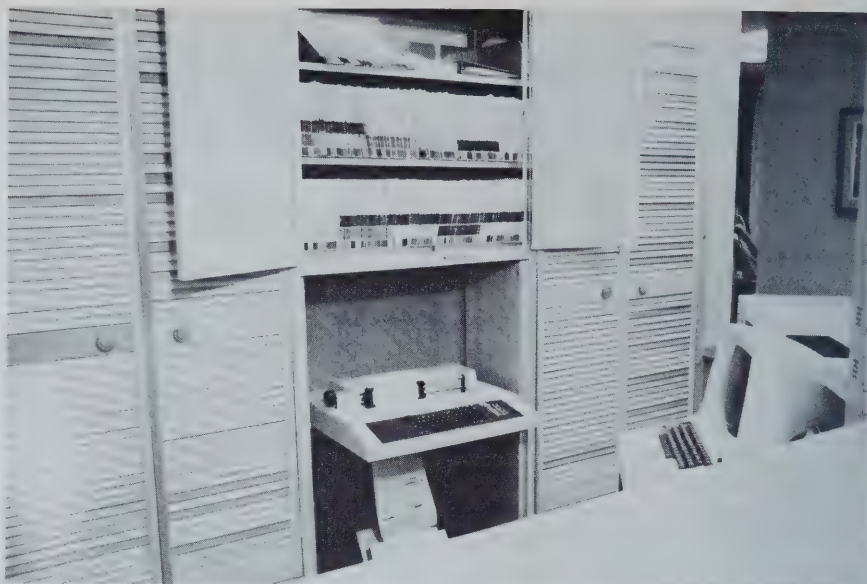
Thus, if the patient calls the receptionist about her account, the receptionist can retrieve the patient's information right on the terminal. This saves the time of chart retrieval and refiling, allowing the receptionist to answer enquiries immediately without leaving her chair.

ACCOUNTS RECEIVABLE

In today's dental practice, there are a number of classifications of receivables. We now have a number of third party payers in addition to the patients themselves. A great advantage, and to some, the most important advantage of computerization, is the total control exercised by the dentist over his receivables. This aspect alone justifies the investment in computerization.

Every charge and every service can be entered into the patient's record and is accumulated on a daily, monthly, quarterly, and annual basis. The payments are also recorded, and reconciled, and the outstanding receivables controlled precisely. Each patient is given, at the end of each visit, a service receipt describing the services rendered and their costs, a receipt for payment, and the completed dental insurance form where necessary. In cases where a direct third party billing is indicated, that form is completed automatically by the computer, and a separate receivable established by the computer. This saves an incredible amount of paperwork for the dentist and his staff, and ensures total accuracy in reporting and record keeping.

At the end of the day, the computer



Space-saving, color-coded numerical patient charts are easy to manage with the computer: the computer retrieves chart numbers in less than a second.

prints out a report of the billings to each patient, the receipts, whether they are cash, cheques, or charge card payments, and reconciles the deposit. In other words, the dentist has complete information about the performance of his practice on a daily basis.

There are other aspects of receivable management that the computer provides. At the end of each month, the computer can provide a printout of the accounts receivable by patient. These can be aged so that collection proceedings can be instituted in an organized fashion, and service charges added where indicated. The statements can be printed out automatically for the patients, ready for placing in window envelopes to mail to the patients. Cheques from third party payers such as Medicare, or direct payment insurers can be reconciled. With the ever growing costs of operating a dental practice it is increasingly important to ensure that collection management is comprehensive, even in practices where a policy of cash-on-delivery has been established.

Without question, the computer has distinct advantages over other methods of accounts receivable management. For this reason, more and more dentists are considering computerization of their practices to ensure

that they have the most efficient system of accounts receivable management possible. To this is added the feature of automatic completion of claim forms, which is becoming increasingly burdensome. It is therefore likely that computers will be seen in more than half of the dental offices by the end of this decade.

RECALLS

In a well managed dental practice, the cornerstone of patient relations is the recall. Prevention-oriented practices have varying periods of recall ranging from once a month, to once yearly, with the majority being recalled every six months. There are a number of efficient methods of recall ranging from tickler files, monthly recall lists, to prebooking. But the computer can make any system work better.

Our office uses a monthly printout from the computer to organize our recalls. At the last of a session of visits, the receptionist tells the computer when the patient should be recalled. At the end of the second week of each month, the computer is asked to print out the recalls for the next month, and it does so giving the patient's name, address, telephone numbers, both at the home and at the office, and the

nature of the recall. The computer can also be programmed to print out recall cards for mailing, but we prefer the personal contact of the telephone call.

Besides being an important part of patient relations, the recall is important in maintaining the revenues generated by maintaining an efficient recall system. Here again, the computer justifies the investment.

PATIENT and CONFRERE MAILINGS

Some dentists like to send Christmas cards to their patients. The computer can print out mailing labels for this or any other purpose. It is also possible to program birthday mailing labels which can be of particular value to pedodontists and orthodontists.

Computers can be programmed with a list of confreres, and suitable report messages to be used by specialists in reporting on referrals. This same list can be used for sending greeting cards or other messages.

ACCOUNTS PAYABLE and GENERAL LEDGER

A very important advantage of the computer is its potential for bookkeeping of office transactions. With the high costs of operating a modern dental office, accuracy in the management of the accounts payable is vital.

The computer can be used to issue cheques and do payrolls, but here the software costs of such programming must be weighed against the advantages. What is important is the recording and posting of expenditures. If the payables are posted, including the categorizing of the expense, the computer can produce a monthly balance sheet and general ledger with ease and accuracy. Personal expenses can be included as well. This can reduce accounting and bookkeeping costs because the dentist can provide his accountant with a monthly copy of his general ledger, and an annual copy at the end of the year. This, coupled with a bank reconciliation, a statement of income from the receivables

program, and a list of outstanding accounts receivable, makes the work of filing tax returns much simpler for the accountant.

OTHER USES

The computer can also be programmed to control inventory, follow lab cases, produce practice profiles, and do statistical analyses of the dental practice. The use of the computer for these purposes is obviously not critical and has to be weighed against the costs of including these programs in software and required memory.

Appointments can also be managed by the computer but to date, no appreciable advantage has been shown over the new more comprehensive appointment book systems. In fact, there are some contraindications for using the computer for appointment book management.

HOW DOES ONE CHOOSE a COMPUTER SYSTEM?

What has made the computerization of the health professional's office possible has been the development of the micro systems of computers. This is not to be confused with the home computers which are the consumer rage of the Eighties. One does not simply go to his local computer centre and buy an Atari or an Apple home computer and then try to acquire the software packages to make it work. The computerization of dental practice is a specialized and sophisticated combination of suitable "Hardware" with specially designed "Software" now being marketed by a number of firms which have directed their efforts at the dental profession and are frankly doing a good job.

Here are some considerations to be taken before embarking on converting to computerization.

1. Quality of Hardware Components

The computer industry is so competitive that most hardware units have intrinsic quality, but with this quality must go applicability to its function in the dental office. The hardware consists of three basic units;

the terminal or video monitor with its input keyboard, memory storage, which is usually a disc based drive system, and a printer for permanent printed output. Most of the suppliers to our profession have selected suitable components for their programming. What the dentist must consider is, will the size and confirmation of the monitor fit in the receptionist's console, will the memory available be adequate for the patient volume and will the printer be adequate to perform the tasks assigned to it?

2. Range of Programs

The dentist considering computer services must be aware of the uses which he or she intends to make of the computer. With the investment involved, it is false economy to engage a system that does not or cannot provide all of the programs that can be included, because expansion of its use will require replacement of the system rather than expansion of the software components.

3. The Quality and Availability of Service.

Once you convert to a computerized system, it is important that the "down time" is minimized. Here, it is wise to have a service contract with the supplier that will assure you that this will be limited. Any system, regardless of the quality of the hardware, will experience occasional technical problems. It is vital from the outset that accommodation for quick service be assured.

4. Staff Orientation procedures

Part of the process of computerization is making your staff familiar with its operation. This requires access to a training system with instruction, including training manuals, to ensure that the staff and the dentist know how to use the system. It is equally important that the supplier provides onsite instruction to this staff during the period of conversion while the data is being initially fed into the new computer and during the early days of operation.

Continued on next page

5. Cost

Most computer systems now functioning and providing comprehensive service cost between \$20,000 and \$30,000 and have service contracts ranging between \$100 and \$150 per month. There is an opportunity to shop in this range but care should be taken to ensure that lower costs do not compromise the flexibility of the system.

HOW ABOUT CONVERTING to the COMPUTER?

It is important, if possible, for the dentist and his staff to visit a computerized operation. Arrangements can be made with the suppliers to allow potential customers to spend a day with a current user of the computer. In this visit, attention should be paid to the general record keeping system, including the type of chart, the appointment book system, the forms that are being used, and the accounting procedures, so the system the dentist is presently using can be evaluated. At this time, decisions can be made that may determine whether some fundamental changes will be made, such as the size of the file, whether a change from alphabetical to numerical filing will be considered, and what programs should be initially included in the system.

Then a staff meeting should be held to exchange with the staff any ideas about how the conversion should be effected in the office. Plans may also be made at this time for system orientation courses that the staff will be required to take.

Establishing a Start-up date

After conferring with the supplier as to the date of delivery of the system, a decision should be taken as to the date the system will be on-line. This date should be at least one month after the system is installed, and should preferably be at the beginning of a quarter-year. This will allow for inputting current data into the computer, familiarization by the staff, and for any system conversions that would be simultaneously effected.



Co-author Shaw inserts a magnetic diskette into the computer's main storage and processing unit. The video display (upper left), storage unit, and printer (right) are all within easy reach of the receptionist.

Initial data transfer

An important consideration for the dentist is how to transfer his patient records to the computer. Should all the records be transferred? Will there be a change of filing systems? We recommend that the charting system be changed from alphabetical to numerical at the outset, or if a numerical system is already in place, that a new series of numbers be assigned to the patients.

If this is done, only the patients with outstanding receivables are entered at the prestart-up period. The prestart-up total of receivables is then recorded as a start-up receivable.

From that time, patients are entered when they appear for treatment. This will provide an easy and manageable transition, and at the same time purge the patient list of inactive patients. It will also avoid burgeoning the memory of the system with unnecessary data.

Start-up

Once the start-up data is entered, the computer becomes an integral part of your office procedures. Each day, the scheduled patients are entered into the menu for that day. If they are old patients not previously entered, their data is transferred be-

fore they arrive. If they are new patients, they are asked to fill in the facesheet of their new chart when they arrive. This is entered immediately into the computer.

CONCLUSION

The computer is part of dental practice management of the future. It is actually part of it today. It is said that computerization will never be less expensive than it is today. Hardware may become slightly less expensive, but cost of software will increase. While there are no direct cuts in the costs of practice management because of computerization, the time saved by staff and the dentist in completing forms and maintaining good records, and the accuracy and control of information will in the long run more than compensate the dentist for the capital and operating costs of the computer.

Equally important, the office personnel feel that records are in good order, and that unnecessary paperwork has been minimized. It certainly has made a difference in our office. It could do the same for you.

Photos: Courtesy of Cortex Systems Ltd. Drs. William F. Shaw and Arnold G. Randolph operate a practice in Pointe Claire, Québec, west of Montréal.

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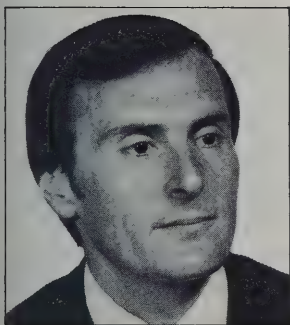
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Faculty of Dentistry,
University of Toronto,
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During the past year there have been several innovative and interesting changes in the instruments and the materials used in endodontics. An example of one of these innovative changes is the introduction by the Kerr Manufacturing Co. of Romulus, Michigan of a root canal file with a rhombus (oblique-angled equilateral parallelogram) cross-sectional geometry. This type of file, which is referred to as the D-type file is reported to be significantly more flexible than the standard or K-type file which has a square or triangular cross sectional (**Figure 1**) geometry. The D-type file also has approximately 25 per cent more flutes, with the exception of the size 10 file. This tends to increase its cutting efficiency in situations where other factors relative to instrument design and manufacture are equal. The twisting of the rhombus-shaped wire which gives rise to the flute design in the D-type file produces alternating large and small flutes as compared to the twisting of a square or triangular shaped wire which produces flutes of equal size in the K-type file. This alternat-

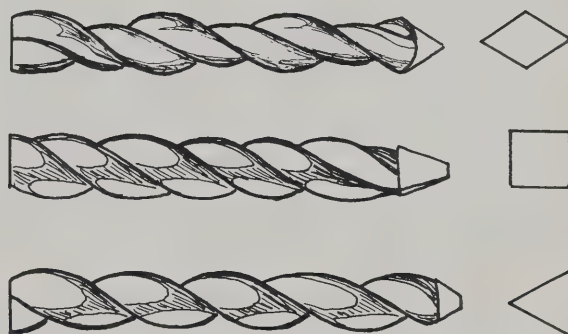


Figure 1

1. D-type Instrument
2. K-type instrument
 - a) Square File
 - b) Triangular File

ing pattern in flute design accounts for the increased flexibility of the D-type instrument.¹ It also gives rise to different combinations of acute and obtuse angles in the

Table 1

Acute and Obtuse Angles of D-Type Files		
File size	Acute angle (degree)	Obtuse angle (degree)
D-08,10	85	95
D-15,20	80	100
D-25-50	75	105
D-55	70	110
D-60	65	115
D-70-140	60	120

Dolan and Craig, *J. Endodont.* 8:260, 1982

cutting blade of instruments of different size (Table 1)*. In general the smaller the blade angle the more efficient the instrument in cutting dentin when a rotary motion is used.

Testing of the physical properties of the D-type files has also shown that they possess a greater uniformity in bending with graduated increases in the instrument size as compared to the K-type files. This permits an easier transition for one file size to the next when the instruments are used clinically in the preparation of fine and curved root canals.

Engine driven hand pieces utilizing specially designed** or K-type endodontic files*** have also been recently evaluated regarding their efficiency and more significantly, their suitability for preparation of the root canal.^{2,12} Studies showed that while root canal preparation might be accomplished more rapidly using an automated device, they are not more effective in debriding the root canal than manual preparation and they possess a greater tendency for producing irregularities in curved root canals during preparation.

The past year has also witnessed a substantial increase in the number of manufacturers producing endodontic files and reamers. While some data is available regarding the physical properties of some of these instruments, a comprehensive comparison of all the different kinds of root canal instruments now manufactured has yet to be undertaken. One limited study³ comparing the effect of flute design on cutting efficiency of files and reamers marketed by Union Broach (Vereingte Dentalwerke, München, W. Germany) Premier (Vereingte Dentalwerke, München, W. Germany) Unitek (Unitek Corp., Monrovia, California) and Star (Maillefer, Ballaigues,

Switzerland) indicated that the reamer group was more efficient in cutting dentin than any of the files, and that Unitek files with a triangular cross-sectional geometry were more efficient than Unitek files with a square cross sectional geometry but less efficient in general than the other brands of size 30 files tested.

Another type of root canal preparing device referred to as an Endosonic cleaner which employs a high-volume continuous flow-through irrigation system and ultrasonic wave energy has shown encouraging results^{4,13} in its ability to prepare and debride the root canal system while at the same time minimize extrusion of debris through the apical foramen. This instrument uses a 'K-type' endosonic file or a newly designed diamond-coated file fitted to a special handpiece that adapts to a standard ultrasonic source. The design of the handpiece allows an irrigant to be passed along the file and into the root canal if desired. A root canal plugger can also be fitted to this system to soften and compact gutta percha cones into the root canal using ultrasonic vibrations. Further reports and commercial information on this device is expected in the coming year.

New methods of filling the root canal space have also been introduced during the past year and older methods have been more thoroughly investigated. Hydron, marketed as a paste with accelerator and inserted into the prepared root canal with a pressure-type syringe to which needles of varying gauge can be adapted was introduced into endodontics several years ago⁵. Hydron* is poly 2-hydroxyethyl methacrylate, a gel derived from the alcoholic re-esterification of methyl methacrylate with ethylene glycol. Its introduction into endodontics brought anticipations of a root canal filling system which would overcome many of the shortcomings experienced with the cone-paste system which utilizes zinc-oxide and eugenol as its chief ingredients. Recent studies into the physical and chemical stability of Hydron and its compatibility with viable tissue under clinical conditions, however, have indicated that significant refinements in the existing formula are necessary before it meets the established criteria for an ideal root canal filling material.^{6,14,15} Gutta percha compound still remains the material of choice for filling of the root canal space and while manual filling of the root canal with this material using a lateral or vertical condensation technique still remains the most widely used method for insertion, automated thermatic condensation using a McSpadden condenser and thermo plasticized gutta percha with a pressure type syringe are rapidly gaining in popularity.

The automated thermatic condensation of gutta percha or McSpadden technique, as it is commonly referred to, uses a latch-type condenser which fits into a slow speed contra-angle (10,000 to 15,000 rpm). The condenser has

*Taken from Dolan and Craig, *J. Endodont.* 8:260, 1982

**Giromatic (Micro Mega), Endo Angle (Union Broach)

***Endolift (Kerr)

*Hydron — N.P.D. Dental Systems



Fig. 2 — Schematic drawing of rotary packing instrument (McSpadden compactor).

been described as a reverse Hedstrom file (**Figure 2**) and has a tapered shaft with a spiraled 90 degree flute having its shoulder directed towards the instrument tip. When the instrument is rotated at 15,000 rpm, frictional heat is generated which softens the gutta percha cone. The blades of the instrument then push the softened mass forward, that is, ahead of the instrument and toward the apex, in both a lateral and vertical direction. Comparative evaluations of efficacy of the McSpadden condenser in filling the root canal space in respect to the manual condensation methods^{7,9,12,17} have been mixed. This probably reflects variations in testing procedure and operator ability as much as it does inadequacies inherent in the automated filling technique. However, certain conclusions can be drawn relative to the results of the test reported. Firstly, the thermatic condensation technique appears to be no less effective in filling the root canal space than the vertical (warm) or lateral condensation methods. Secondly, the thermatic condensor is significantly faster than digital methods. There is, however, a greater tendency to extend the gutta percha beyond the confines of the root canal system as compared to the digital methods and there is a greater tendency for instrument breakage particularly when smaller sized (25-35) condensers are used in curved or irregular root canals. These failings can be reduced, however, with an increase in operator experience. The use of standard root canal sealing cements in combination with gutta percha when the automated technique is used, can also result in some technical problems. There is, for example, a tendency for the root canal cement to lose its uniformity and to pool in certain areas when this method of condensation is utilized. While eliminating sealer entirely from the filling procedure can overcome the problem it does result in a greater unpredictability in establishing effective sealing of the root canal in the apical area. Finally, while the unit cost of a McSpadden condensor

may be high, the initial cost may be minimized by the reduced number of gutta percha cones necessary to effectively fill the root canal space as compared to the number required when the vertical and lateral methods are used.

The use of thermoplasticized gutta percha (warmed electrically to a plastic consistency) which is injected through a needle of varying gauge into the root canal space with a pressure type syringe is another new method of root canal filling. Initial investigations¹⁸ in this technique has shown it to be as good as the vertical and lateral condensation methods in filling the root canal. Unlike the thermatic condensation method it does tend to produce a uniform dispersion of sealing cement between the gutta percha and the root canal walls when the cement is inserted into the canal prior to filling. Since a metal-type condenser is not required with this technique the danger of fracture of a filling instrument in the root canal has been effectively eliminated. The cost and the limited availability of the thermoplasticizing pressure syringe has restricted the wide clinical use of this method at present. Future changes in marketing and distribution, however, may witness an increase in its popularity.

The question of disinfection methods for gutta percha cones used in filling the root canal or more basically, the need for disinfection of gutta percha cones also recently has been investigated. The question of method of disinfection is important because changes in the physical or chemical properties of the cone could ultimately influence the effectiveness they have in sealing the root canal when used in association with one of the filling techniques previously described. Two recently published papers^{10,11} appear to indicate that gutta percha cones have an inherent antimicrobial property related to their zinc oxide content and that this antimicrobial activity may be effective in keeping the cone, as supplied by the manufacturer, free of bacteria prior to its use. Variations in chemical composition of gutta percha cones as supplied by different manufacturers,⁸ however, can effect their mechanical properties and their antimicrobial properties so that here again a comprehensive evaluation of all the different gutta percha cones available commercially should be undertaken.

REFERENCES

1. Dolan, D.W., and Craig, R.G. Bending and torsion of endodontic files with rhombus cross sections. *J. Endodont.* 8:260-264, 1982.
2. Abou, Ross M., and Jastrab, R.J. The use of rotary instruments as auxiliary aids to root canal preparation of molars. *J. Endodont.* 8:78-82, 1982.
3. Felt, R.A., Moser, J.B., and Heuer, M.A. Flute design of endodontic instruments: its influence on cutting efficiency. *Endodont.* 8:253-259, 1982.
4. Cunningham, W.T., Martin, H., and Forrest, W.R. Evaluation of root canal debridement by the endosonic ultrasonic synergistic system. *O. Surg.* 53:401-404, 1982.
5. Benkel, B.H. et al. Use of a hydrophilic plastic as a root canal filling material. *J. Endodont.* 2:196-202, 1976.

Continued on next page

6. Director R.C., Rabinowitz, J.L. and Milne, R.S. The short-term sealing properties of lateral condensation, vertical condensation and Hydron using ¹⁴C human serum albumin. *J. Endodont.* 8:149-151, 1982.
7. Benner, M.D., Peters, D.D., Grower, M., and Bernier, W.E. Evaluation of a new thermoplastic gutta percha obturation technique using ⁴⁵Ca. *J. Endodont.* 7:500-508, 1981.
8. Friedman, C.M., Sandrik, J.L., Heuer, M.A., and Rapp, G.W. Composition and mechanical properties of gutta percha endodontic points. *J. Dent. Res.* 54:921-925, 1975.
9. Harris, G.Z., Dickey, D.J., Lemon, R.R. and Leubke, R.G. Apical seal: McSpadden vs. lateral condensation. *J. Endodont.* 8:273-276, 1982.
10. Moorer, W.R., and Genet, J.M. Antibacterial activity of gutta percha cones attributed to the zinc oxide component. *O. Surg.* 53:508-517, 1982.
11. Moorer, W.R. and Genet, J.M. Evidence for antibacterial activity of endodontic gutta percha cones. *O. Surg.* 53: 503-507, 1982.
12. Lehman, J.W. and Gerstein, H. An evaluation of a new mechanized endodontic device: The Endolift. *O. Surg.* 53: 417-424, 1982.
13. Martin, H. and Cunningham, W.T. The effect of endosonic and hand manipulation on the amount of root canal material extruded. *O. Surg.* 53:611-613, 1982.
14. Rhome, B.H., Solomon, E.A., and Rabinowitz, J.H. Isotopic evaluation of the sealing properties of lateral condensation, vertical condensation and Hydron. *J. Endodont.* 7:458-461, 1981.
15. Tanzilli, J.P., Nevins, A.J., and Borden, B.G. A histologic study comparing Hydron and gutta percha as root canal filling materials in monkeys. *J. Endodont.* 7:396-401, 1981.
16. Lugassy, A.A. and Yee, F. Root canal obturation with gutta percha: a scanning electron microscopic comparison of vertical compaction and automated thermatic condensation. *J. Endodont.* 8:120-125, 1982.
17. Wong, M., Perers, D.D., and Lorton, L. Comparison of gutta percha filling techniques, compaction (mechanical) vertical (warm) and lateral condensation techniques. Part 1. *J. Endodont.* 7:551-558, 1981.
18. Torabinejad, M. et al. Scanning electron microscopic study of root canal obturation using thermoplasticized gutta percha. *J. Endodont.* 4:245-250, 1978.
19. Lentine, F.N. A study of torsional and angular deflection of endodontic files and reamers. *J. Endodont.* 5:181-191, 1979.

References:

1. Data on file at Block Drug Co., Inc.;
2. Meffert, R.M. and Hoskins, S.W., Jr.: *J. Periodontol.* 35:232 (May-June) 1964.;
3. Ross, M.R.: *J. Periodontol.* 32:49 (Jan.) 1961.;
4. Zelman, H. and Hillyer, C.E.: *N.Y. J. Dent.* 33:259 (Aug.-Sept.) 1963.;
5. Pusso-Carrasco, H.: *Pharmacol. Ther. Dent.* 1:209 (June) 1971.;
6. Cohen, A.: *Oral Surg.* 14:1046 (Sept.) 1961.;
7. Skurnik, H.: *J. Periodontol.* 34:183 (Mar.) 1963.;
8. deRabbione, M. and Monteverde, J.: *El Cooperador Dental (Argentina)* 31:186 (Nov.-Dec.) 1964.;
9. Blitzer, B.: *Periodontics* 5:318 (Nov.-Dec.) 1967.;
10. Moss, R.L.: Abstracts, 49th General Session, IADR, March 19, 1971, Abstract No. 285.;
11. Stookey, G.K. and Muhler, J.C.: *J. Dent. Res.* 47:524 (July-Aug.) 1968.;
12. Shapiro, W.B. Kaslick, R.S. and Chasens, A.I.: *J. Periodont* 41:702, 1970.;
13. Nevins, L.M.: *New York State Dent. J.* 30:160, 1964.;
14. Shapiro, W.B. Kaslick, R.S. Chasens, A.I. and Weinstein, D.: *J. Periodont*, 41:523, 1970.;
15. Uchida, A., et al: *J. Periodontol* 51:578 (Oct.) 1980.

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1. Anderman, I.I. *Indications for the use of electrosurgery in pedodontics*. Dental Clinics of North America, v. 26, no. 4, October 1982, pp. 711-728.
2. Berson, R.B. *Head lice infestation and pedodontic practice*. ASDC Journal of Dentistry for Children, v. 48, no. 3, May-June 1981, pp. 201-204.
3. Carter, J.W. *Needed: a dual specialty in pedodontics and orthodontics*. Dental Student, v. 57, No. 4, January 1979, pp. 23-26.
4. Coll, J.A. and Conlan, J.G. *The pediatric dental office*. Pediatric Dental Clinics of North America, v. 29, no. 3, June 1982, pp. 743-759.
5. Davis, M.J. *Pediatric dentistry: perceptions of change*. New York Journal of Dentistry, v. 53, no. 2, February 1983, pp. 59-60.
6. Dinar, H. *Hospital-based special pedodontic clinic*. Special Care in Dentistry, v. 1, no. 6, November-December 1981, pp. 275-276.
7. Eichenbaum, I.W. and others. *Impact of fluoridation in a private pedodontic practice: thirty years later*. ASDC Journal of Dentistry for Children, v. 48, no. 3, May-June 1981, pp. 211-214.
8. Elvey, S.M. and Hewie, S.P. *The pediatrician's dental evaluation*. Pediatric Clinics of North Ame-

rica, v. 29, no. 3, June 1982, pp. 761-769.

9. Fields, H.W. and others. *Reliability of soft tissue profile analysis in children*. Angle Orthodontist, v. 52, no. 2, April 1982, pp. 159-165.
10. Howard, H.E. *Rethinking pedodontic radiology*. ASDC Journal of Dentistry for Children, v. 48, no. 3, May-June 1981, pp. 192-197.
11. Katz, H.S. *A review of pediatric dental pharmacology*. Journal dentaire du Quebec, March 1982, pp. 31-36.
12. Keys, J. and Jago, J. *A sensible approach to working with children*. Australian Dental Journal, v. 24, no.5, October 1979, pp. 342-346.
13. Massler, M. *Dentistry for children: a retrospective review and future trends*. Alpha Omegan, v.72, no. 2, September 1979, pp. 19-20.
14. Meskin, L. and others. *Entering the '80s: pedodontic practice characteristics and practitioner satisfaction*. Pediatric dentistry, v. 3, no. 3, September 1981, pp. 241-245.
15. Meskin, L. and others. *Too many pedodontists? If so, what, then?* Pediatric Dentistry, v. 4, no. 2, June 1982, pp. 119-123.

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16. Mirandi, F.L. Jr. *Orthodontics in pedodontic practice: a survey of the Southwestern Society of Pedodontists*. Pediatric Dentistry, v. 2, no. 3, Sept. 1980, pp. 217-220.
17. Ranalli, D.N. *Design of a post-doctoral training program in the treatment of children with congenital orofacial clefts*. Special Care in Dentistry, v. 1, no. 5, September-October 1981, pp. 218-220.
18. Rifkin, A.J. *Children's dentistry-a review of the recent literature*. Journal of the Dental Association of South Africa, v. 36, no. 5, May 1981, pp. 325-331.
19. Rombom, H.M. *Behavioral techniques in pedodontics: the hand-over-mouth technique*. ASDC Journal of Dentistry for Children, v. 48, no. 3, May-June 1981, pp. 208-210.
20. Sanger, R.G. *Hepatitis: A new crisis in pedodontics*. Pediatric Dentistry, v. 3 no. 1, March 1981, pp. 46-55.
21. *Survey of attitudes and practices in behavior management*. Association of Pedodontic Diplomates. Pediatric Dentistry, v. 3, no. 3, September 1981, pp. 246-250.
22. Tanguay, B. *Pour une plus grande accessibilité des soins dentaires chez les enfants*. Journal dentaire du Québec, v. 16, February 1979, pp. 39-40.

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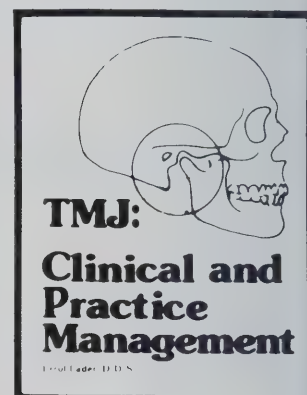
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Pedodontics: A Systematic Approach

Magnusson, Koch, Poulsen

Munksgaard
Copenhagen, Denmark
\$65
386 pages

To quote the editor of this text, the intent of *Pedodontics* — a systematic approach “is intended as a presentation of the scientific background and treatment philosophies prevailing in the systematic dental care of children and adolescents in Nordic countries”.

I have always taken great interest in reading scientific dental articles on research from the Scandinavian countries as they are generally well planned, performed and documented, and often with direct clinical application.

This text is no exception. I doubt if it was planned as a textbook for graduate students, but it could be suggested reading for undergraduates, even though the few references cited are often European or Scandinavian.

The sixteen chapters presented are either written by one author or through group effort, from quite a formidable list of contributors from the Nordic universities.

The first two chapters outline the historical background to the philosophies of the Nordic dental system and the epidemiological rationale for group treatments which is inherent in any socialised system.

The third chapter again, is basic in nature for a pedodontic graduate student, but would be useful for undergraduate reading or for those dental office personnel interested in childrens' dentistry. The last paragraph “Epicritic evaluation” emphasizes that with con-

stant changes in child development and behaviour, re-assessment of past treatment plans is a must at least at each recall, if not at each visit, but especially at each developmental stage.

I personally like the fourth chapter written by the late editor of the textbook. It is an excellent summary of child psychology and behaviour management. Unfortunately, no references are used, only suggested readings.

Pain control — the fifth chapter — is presented well, clinically useful and illustrated clearly. The appendix 5 — 1 on local anaesthesia is an excellent summary presentation on a format that is used throughout the textbook.

Chapter six on dental development and its aberrations, is a well presented and illustrated summary of the major clinically applicable stages of teeth and jaw development, and the common aberrations that could emanate from these stages.

Chapters seven and eight on caries and periodontal disease in children, presents an excellent overview of the disease and leads into chapter nine on preventive dentistry that is the foundation of the philosophy of the dental services in the Nordic countries. Again, references are poor in their scarcity of numbers.

Operative dentistry — Chapter 10 — is well presented and illustrated, with an excellent appendix at the end of the chapter.

The pulp therapy chapter could be debated in this area of the world with a discussion on the use of calcium hydroxide for deciduous teeth pulpotomies, even though both sides of the argument are presented.

The chapter on preventive orthodontics is more descriptive of

the orthodontic service offered by the Scandinavian system and is explained simply in three levels.

The combined chapter on oral pathology and minor oral surgery, gives a well illustrated overview of both areas. Again, clinically directed and brief in description. Suggested reading is offered at the end of the chapter.

A chapter on dentistry for handicapped children is often missing in most pedodontic texts in the philosophical and practical form in which this is presented. Most texts embrace this topic under general pathology and therefore miss the direct clinical application.

Chapter 15 on traumatic injuries to the teeth is well illustrated, clinically directed and up to date with current thinking and treatment rationale. It is a must for practitioners seeing and treating trauma in the office.

The last chapter entitled “The Dental Team and its Future Responsibilities” is appropriate at this time because of the obvious changes that are occurring in the delivery of dental care in most western countries. It also makes one ponder the first chapter about the Scandinavian service system to see if it is as effective for the population as a whole.

In summary, this book is an excellent clinically illustrated text that can be used by undergraduate students, dental auxiliary staff and should be general reading for graduate pedodontic students. At least it gives a philosophical overview of a pedodontic treatment system from another area of the world.

This book was reviewed by Albert Shapira, of Willowdale, Ont, past-president of the Ontario Society of Paedodontists.

Outline of Forensic Dentistry

James A. Cottone and

S. Miles Standish (Ed.)

Year Book Medical Publishers, Inc.
Chicago, Illinois
\$26.75
177 pages

The Outline of Forensic Dentistry is a 177 page soft cover book which contains 12 chapters. The editors are of the opinion "that the general practicing dentist has insufficient training and experience to assist effectively in an identification or to provide expert testimony".

The 15 contributing authors are, for the most part, well known American forensic experts. Their credentials speak for themselves.

The style is fluid, simple yet concise, a most difficult task when dealing with as many authors.

The *educational objectives* is used as a flow chart. It outlines the contents of the book and the major questions to be answered.

The chapters which are particularly informative, well written and master the principles outlined are forensic pathology, anthropology, dental radiology, dental identification, special techniques and dental jurisprudence.

By far, the chapter which deserves the most severe criticism is the chapter on forensic photography. It is incomplete and childishly naïve. The four pages of black and white photographs are poorly selected, the techniques outlined unmastered with subsequent bad results. It is as though the author did not have decent

photographs and presented the material with appropriate critiques. It is incomprehensible that this subject matter, often considered a cornerstone of forensic dental work, be treated in three pages of text and without a single reference.

The most difficult subject matter in forensic dentistry is bite mark investigation. The author cites only a few of the factors involved with an injury pattern on human skin which can be recognized as a bite mark. Readers are warned however that some of the opinions expressed by the author are of a subjective nature and based upon education, training and experience. They do not necessarily reflect a consensus of opinion on the subject. There is little attempt to deal with bite marks of animal origin and no attempt on inanimate objects. To have adequately described the subject would have required a book in itself but under the circumstances what was presented was well done with appropriate additional reading material and cases.

The case in 1850 whereby a dentist gave a one year money-back guarantee on a set of full dentures and a subsequent verdict for the plaintiff serves as excellent illustration for the chapter on the principles of dental jurisprudence. The glossary of legal terms and

forensic reports are included in the five appendices.

One particular weakness of the book is in its illusive treatment of an estimated 20 million Americans, namely the completely edentulous person. Whereas the Index cites only two references various other cases are mentioned throughout the book. A separate chapter dealing with the subject would have been more appropriate.

The basic principles for mass disaster procedures were outlined following the Noronic Disaster in 1949 and subsequent publication in the Canadian Dental Association Journal in 1952. Computerization of dental records for identification purposes was introduced in North America by the Ministry of Justice in the Province of Quebec in 1975. There is nothing new or original proposed in the chapter on mass disasters although the text is well organized and clear.

The use of the Universal System of dental nomenclature is quite evident throughout the book. To the unwary, it can present a problem particularly when dealing with children or the adolescent in the mixed dentition stage.

Golman states that "the field of forensic odontology is demanding, challenging and intriguing. It requires dedication, a broad background in dentistry, imagination tempered by common sense". These words depict the soul of this book and as such describe a valiant effort on the part of the authors to outline forensic dentistry.

This book was reviewed by Robert B.J. Dorion, BSc, DDS, Diplomate ABFO, specialty contributor to JCDA, Montréal, Québec.



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L'une des principales fonctions de l'ADC consiste à représenter les membres de la profession

C'est en 1977 que l'Association dentaire canadienne déménageait son siège social à Ottawa dans le but précis d'établir et de maintenir des rapports suivis avec le gouvernement fédéral et ses nombreux ministères. On a cru pouvoir ainsi surveiller de plus près les activités du gouvernement et établir avec lui des moyens de communication directs.

Ce déménagement s'est révélé une très sage décision, puisque tous les objectifs poursuivis ont été atteints.

En surveillant de près les activités des divers ministères, en s'informant continuellement des décisions prises à la Chambre des Communes, en prenant immédiatement connaissance du résultat des recherches faites par les groupes de travail et en participant aux audiences des commissions parlementaires, l'ADC a pu jouer un rôle important dans l'orientation des politiques gouvernementales.

L'ADC a su non seulement se faire reconnaître comme il se doit, mais elle a établi un crédit dont elle avait grandement besoin. C'est ce qui ressort clairement des discussions qui ont lieu régulièrement et discrètement, dans les coulisses, avec des fonctionnaires du gouvernement.

Au cours des premières années, une aide a été fournie dans un grand nombre de domaines sur des sujets comme l'alimentation, les règlements touchant les analgésiques vendus librement, les normes et les directives dans l'exercice de la dentisterie, l'enlèvement des drogues des cabinets dentaires, les définitions et l'interprétation des lois touchant les droits de douane.

Bien que les interventions effectuées dans les domaines d'intérêt mutuel ne soient pas ordinairement mises en lumière et ne semblent pas procurer des avantages immédiats aux membres en général, elles constituent un atout pour le crédit dont

Nouvelle série d'articles

Étant donné que les personnes qui ne font pas partie de l'ADC ne connaissent sans doute pas les importants services que l'association rend à ses membres, le Journal publiera au cours des six prochains mois des articles pour les renseigner à ce sujet.

On y décrira les fonctions des divers conseils et comités de l'ADC, les activités en cours et les projets proposés afin de servir au mieux les intérêts des dentistes canadiens.

Il convient de préciser que la publication de cette nouvelle série a été entreprise en septembre, alors que le Journal publiait un article sur la Bibliothèque et le Centre de documentation de l'ADC et présentait la bibliothécaire, Mme Trudi DiTrollo.

l'ADC jouit, surtout si l'on songe au régime médical actuel et à la controverse qui a maintenant lieu. La profession dentaire gagne du terrain parce qu'elle a su s'opposer fermement contre certaines mesures, tels la facturation supplémentaire et les frais de l'usager.

L'un des principaux objectifs de l'ADC a été de redorer le blason de la dentisterie dans tous les sens possible. Cet objectif a été atteint l'an dernier quand on a nommé un consultant principal en dentisterie au ministère de la Santé. De plus, l'ADC a formé un comité d'étude pour aider la direction générale des Services médicaux touchant l'administration et la politique nécessaires pour établir et mettre en vigueur un programme de soins dentaires à l'intention des Inuits et des groupes autochtones du Canada. En

outre, le ministère de la Santé et du Bien-être social a commandé une étude de 30 000\$ sur les droits de douane pour connaître les conséquences qu'entraînent les droits de douane sur les matériaux dentaires.

Et récemment, l'ADC a présenté un mémoire au sous-ministre de Santé et Bien-être social Canada sur les appréhensions de l'Association au sujet de la stratégie proposée en matière de santé.

Le gouvernement fédéral est un vaste réseau bureaucratique. Et le ministère de la Santé et du Bien-être social est lui-même une importante corporation. Pour être sans cesse au courant de ses activités et des lois qu'il veut formuler, et pour connaître le grand nombre des principaux fonctionnaires qui y travaillent, il faut une attention soutenue. La même vérité s'applique aux ministères des Finances et du Revenu qui ne cessent de menacer les moyens d'existence des membres de la profession dentaire en modifiant continuellement des régimes d'impôt déjà fort complexes.

Le rôle que joue l'ADC en aidant à formuler des règlements constitue un défi. Au cours des dernières années, l'ADC s'est initiée à ce rôle et, à l'avenir, elle continuera à lui donner plus d'importance afin de s'assurer que tout règlement qui pourrait être nuisible au bien-être de la profession soit étudié attentivement et, si nécessaire, contesté.

Succès possible

Il n'est pas aisé de changer la philosophie qui se trouve à la base des politiques fédérales. Toutefois, ce n'est pas impossible.

Le meilleur exemple d'une victoire en ce sens est celui du 27 octobre 1982. À la suite d'une campagne prolongée menée par un comité de l'ADC, le gouvernement fédéral a renoncé à ses

Suite à la page suivante

Les services de l'ADC

projets visant à taxer les contributions des employeurs aux régimes d'assurance dentaire des employés.

Pourtant, il a parfois semblé que le gouvernement fédéral ne s'écarterait pas de la proposition présentée une année de plus tôt par Finances Canada.

Vérification des sociétés de gestion

Un autre point qui continue à préoccuper un grand nombre de praticiens au Canada, ce sont les vérifications des sociétés de gestion.

Le comité des Questions fiscales de l'ADC continue à contester l'interprétation de Revenu Canada touchant les dépenses des sociétés de gestion admises comme marge de profit.

Dans le passé, la plupart des sociétés de gestion professionnelle ont calculé une marge de profit allant jusqu'à 15 pour cent de toutes les dépenses, afin d'atteindre un bénéfice raisonnable pour la société. Revenu Canada a ensuite agréé cette formule, mais tout récemment, la nouvelle politique a été de n'accepter la marge de profit de 15 pour cent que pour un nombre limité de dépenses.

Au cours des premières rencontres avec Revenu Canada, le président du comité des Questions fiscales a exposé pourquoi l'ADC jugeait le nouveau mode de calcul non raisonnable, démontrant que les sociétés de gestion qui n'appartiennent ni à des dentistes ni à leurs familles exigent des frais

supérieurs à ceux que les sociétés appartenant à des dentistes ou à leurs familles réclament comme profit.

Dernièrement, Revenu Canada apprenait à l'ADC que la gestion avait été transférée de la division de l'Évitement fiscal à celle des Interprétations techniques. Il est possible que celle-ci soit plus en mesure de répondre aux raisons fondamentales évoquées par l'ADC.

Comité professionnel mixte

Il y a quelque temps, l'ADC a relevé certains points sur lesquels les lois ou les projets de loi fédéraux pouvaient modifier les droits et privilèges des membres de certaines professions.

L'ADC a donc formé un Comité professionnel mixte en 1978 afin d'étudier des questions comme les méthodes possibles pour améliorer les caisses d'épargne-retraite des Canadiens qui gèrent de petites entreprises (y compris les pratiques professionnelles).

Le comité comprend maintenant des représentants de l'Association médicale canadienne, l'Association du Barreau canadien et l'Institut canadien des comptables agréés. L'ADC a établi les objectifs suivants:

1. Réviser les règlements fiscaux actuels ayant trait à l'épargne-retraite et les revenus des directeurs des petites entreprises et des professionnels à leur compte au Canada, dans le but de formuler des recommandations à l'intention du gouvernement fédéral

déral pour rendre ces règlements plus équitables.

2. Étudier et faire des recommandations au gouvernement fédéral touchant les points précis suivants:

- a) les niveaux de contribution en vertu des règlements des REER;
- b) les options touchant les régimes de pension au moment de la retraite;
- c) les contributions au titre du service antérieur.

Le premier projet du comité a été d'obtenir que les frais liés à l'éducation permanente soient déductibles pour les professionnels. Revenu Canada a accepté plus de 80 pour cent des recommandations proposées.

Actuellement, le comité est en train de préparer une prise de position touchant les pensions qu'il adressera au ministre des Finances.

En avril dernier, la Chambre des Communes a annoncé la formation d'un Groupe de travail parlementaire sur la réforme des pensions. On a invité des particuliers et des organismes à présenter au Groupe de travail des soumissions écrites touchant les propositions pour réformer les régimes de pension canadiens qui ont été formulées dans une publication du gouvernement fédéral intitulée: "De meilleurs régimes de pension pour les Canadiens." Le Comité professionnel mixte a préparé son mémoire dans cette intention.

Problèmes plus considérables en gériatrie à l'avenir

L'été dernier, lors d'un symposium tenu aux États-Unis sur la dentisterie pour les gens âgés, le premier symposium du genre, on a prédit que l'incidence des maladies parodontaires augmenterait parmi les gens âgés.

Cette prédiction semble avoir étonné une grande partie des 150 participants. Les raisons citées pour la justifier comprennent une attitude d'indifférence à l'égard de la santé bucco-dentaire, des ressources financières restreintes et une pauvre ali-

mentation.

Au Canada, la situation n'est guère meilleure. En l'an 2000, environ 12 pour cent des Canadiens recevront leur pension de vieillesse. Aux États-Unis, en l'an 2040, 67 millions de personnes auront plus de 65 ans.

Lès personnes âgées peuvent encore avoir des caries radiculaires, il peut leur manquer des dents et leurs dentistes peuvent être mal ajustés. En outre, ils ont souvent du mal à se rendre chez le dentiste, ayant de la

difficulté, par exemple, à monter des escaliers.

Le symposium américain a abordé ces problèmes. Malheureusement, les programmes actuels établis à l'intention des gens âgés "ne sont pas suffisants pour atteindre la population qui, au reste, est très mal servie," a remarqué le Dr Sydney Epstein. Attaché à l'école dentaire de l'Université de la Californie à San Francisco, celui-ci a été l'un des organisateurs du symposium.

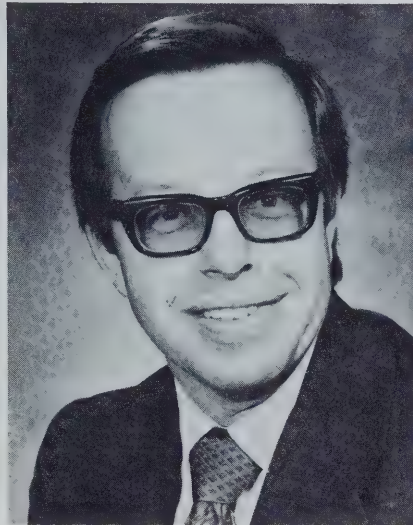
L'Académie de dentisterie générale choisit son premier président canadien

Lors de l'Assemblée annuelle de l'Académie de dentisterie générale (ADG) qui a eu lieu à Toronto du 16 au 20 juillet 1983, le Dr W. Robert Patrick, de Trenton, en Ontario, est devenu le premier président canadien dans l'histoire de l'institution.

Ancien maire de Trenton, le Dr Patrick a déjà fait partie du Conseil d'administration de l'hôpital *Memorial* de Trenton, a présidé les conseils de Planification du comté et de la ville ainsi que les comités urbains des Finances et des Travaux publics. Il a de plus été membre du Conseil exécutif de la ville.

Par ailleurs, il a déjà été président du *Rotary Club* de Trenton et directeur de la Chambre de Commerce.

Le Dr Patrick a été le vice-président de l'ADG en 1981 et son président désigné en 1982. Il a également rempli deux mandats de deux ans chacun, à partir de 1977, en tant que secrétaire



Le Dr W. Robert Patrick

de l'ADG. En outre, il a été membre des comités des Finances et du Budget de la même institution. Ancien directeur national de l'ADG pour l'Est du Canada, il a présidé l'Assemblée annuelle tenue à Montréal en 1977.

Il est membre de l'ADG et du Collège international des dentistes.

Diplômé en chirurgie dentaire à la Faculté dentaire de l'Université de Toronto, le Dr Patrick est praticien privé à Trenton, en Ontario.

Un autre Canadien à l'honneur

Au Congrès de l'ADG, on a rendu hommage à un autre Canadien en l'invitant à présenter la prestigieuse conférence *Albert L. Knab Memorial*.

Il s'agit du Dr Ronald R. Jordan, DDS et MSD, président du département de la Dentisterie restauratrice à l'Université de Western Ontario, à London, en Ontario, et examinateur principal du Bureau national d'examen dentaire du Canada.

Le sujet choisi par le Dr Jordan a été les restaurations à l'aide de la résine composite; mise à jour sur les matériaux et les techniques.

Remise en vigueur du programme dentaire au Nouveau-Brunswick

Le Nouveau-Brunswick a relancé son programme dentaire à l'intention des patients du Service social.

Plus tôt cette année, le ministère provincial du Service social avait, par mesure économique, restreint le programme en question, mais à la suite des vives protestations formulées par les 195 dentistes de la province et la Société dentaire du Nouveau-Brunswick (SDNB), l'a remis en vigueur le 1^{er} septembre dernier.

Le Dr Jack Thompson, directeur administratif de la SDNB, a déclaré que la profession dentaire se réjouit de cette victoire.

Des représentants officiels de la

SDNB, dont le président, le Dr Robert Turcotte, et le Dr Thompson, ont rencontré le Premier Ministre, M. Richard Hatfield, à la fin de l'été pour l'exhorter à revoir la décision du gouvernement touchant la restriction des services dentaires pour les assistés sociaux.

"Nous avons également protesté auprès du Ministre du Service social, Mme Nancy Clark Teed, de la présidente suppléante du Conseil du Trésor, Mme Brenda Robertson, et du Ministre des Finances, M. John Baxter, et cette démarche a tout changé, a noté le Dr Thompson. Par ailleurs, nous attribuons la remise en

vigueur du programme aux vives protestations émises par les dentistes du Nouveau-Brunswick."

Lancé en 1967, le programme couvre les traitements pour les enfants jusqu'à l'âge de 18 ans, y compris les soins préventifs et restaurateurs, les diagnostics, certaines obturations et certains traitements des canaux radiculaires (sur une base individuelle). Les soins d'urgence pour les personnes de plus de 18 ans seront encore administrés en vertu de ce programme.

"Environ 6000 enfants que les restrictions auraient touchés, continueront à recevoir des soins dentaires complets," a précisé le Dr Thompson.

Le président de l'Association dentaire du Japon rend visite à son homologue canadien

Le Dr Kazuo Yamazaki, président de l'Association dentaire du Japon, a rendu une visite de courtoisie à son homologue canadien, le Dr William Thompson, au siège social de l'ADC, à Ottawa, à la mi-août. Le Dr Yamazaki effectuait une tournée des pays touchant le Pacifique afin d'inviter les dentistes à participer au prochain congrès de la Fédération dentaire internationale qui aura lieu à Tokyo, du 14 au 20 novembre 1980.

Le Dr Yamazaki agit également comme président du Comité organisateur du 71^e Congrès annuel de la FDI. Il était accompagné du Dr Katsuo Tsurumaki, directeur de l'Association dentaire du Japon et vice-président du Comité organisateur du congrès.

Le Dr Takayoshi Igarashi, professeur et président du département de Prosthodontie à l'École dentaire de l'Université Nihon à Tokyo, servait d'interprète.

La rencontre a été amicale, les visiteurs japonais montrant un vif intérêt pour les services fournis par l'ADC ainsi que pour les préoccupations des dentistes canadiens. Par ailleurs, le Dr Yamazaki a offert une oeuvre d'art japonaise en céramique au Dr Thompson en guise de présent de l'ADJ à l'ADC.

À son tour, le Dr Thompson a remis à son hôte un exemplaire de l'ouvrage bilingue intitulé: "Trésors du Canada" qui contient des descriptions et des illustrations des plus beaux sites du pays.

Un grand nombre d'écoles dentaires

Le Dr Igarashi a fait observer qu'il y a 29 écoles dentaires au Japon et que, chaque année, il en sort environ 3 000 diplômés.

Quand on lui a demandé s'il y avait un problème touchant les ressources en personnel dentaire au Japon, il a répondu: "Oui, certes. On a demandé aux universités de recruter moins

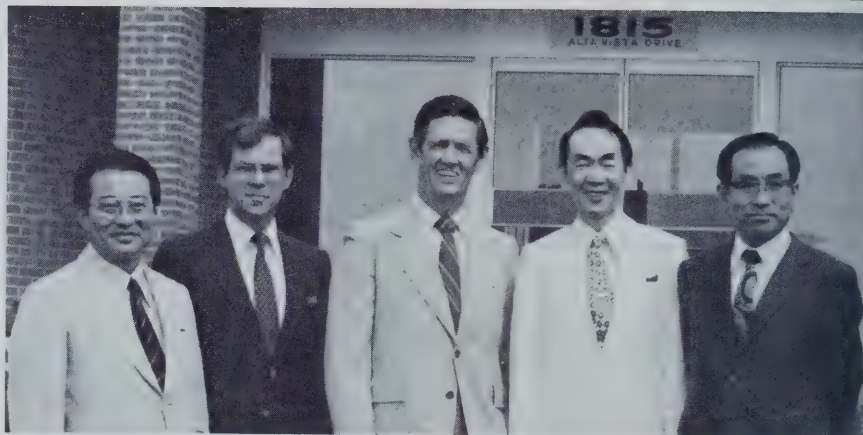


Photo: Heather Lang-Runtz.

Après un entretien amical touchant les projets pour le Congrès de la Fédération dentaire internationale qui aura lieu à Tokyo, au Japon, du 14 au 20 novembre 1983, ainsi qu'une visite du siège social de l'ADC à Ottawa, hôtes et visiteurs ont posé à l'intention du photographe devant l'édifice de l'ADC. Ce sont, de gauche à droite: le Dr. Takayoshi Igarashi, qui servait d'interprète; le directeur général de l'ADC, M. Hubert Drouin; le président sortant de l'ADC, le Dr Thompson; le président de l'Association dentaire du Japon, le Dr Kazuo Yamazaki; et le directeur de l'Association dentaire du Japon, le Dr Katsuo Tsurumaki.

d'étudiants et c'est ce qui se fait présentement."

À la fin de l'entretien, le Dr Thompson a remarqué que le Japon a les mêmes problèmes que le Canada.

La tournée des invités de marque japonais comprenait Singapour, l'Indonésie, la Corée, Hong Kong, le Canada et les États-Unis.

D'Ottawa, ceux-ci se sont rendus à Chicago par avion afin de rencontrer des représentants officiels de l'Association dentaire américaine.

Le Dr Tsurumaki a déclaré que le Comité organisateur du Congrès de la FDI prévoit une assistance de 18 000 personnes, dont 3 000 venant de l'étranger.

Régime d'épargne-retraite de l'ADC

Les valeurs respectives du Régime d'épargne-retraite de l'Association Dentaire Canadienne étaient les suivantes au 30 août 1983.

<i>Fonds d'actions ordinaires</i>	\$74.74746
<i>Fonds à revenu fixe</i>	\$36.05397
<i>Fonds garanti</i>	\$26.66026
<i>Fonds de placement</i>	\$15.10543

L'avoir total (valeur marchande) du régime s'élevait à \$37,386,323.

Au 31 juillet 1983, les chiffres du mois précédent étaient les suivants:

<i>Fonds d'actions ordinaires</i>	\$73.66969
<i>Fonds à revenu fixe</i>	\$36.05386

<i>Fonds garanti</i>	\$26.50090
<i>équilibré</i>	\$15.01886

L'avoir total (valeur marchande) du régime s'élevait à \$37,160,478.

Pour de plus amples renseignements, veuillez écrire à l'adresse suivante: Canadian Dental Service Plans Inc., Ste. 600, 2 Lansing Square, WilLOWdale, Ontario M2J 4Z3, ou appeler le service de renseignements du CDSPI en composant 1-800-268-5418 (appel sans frais pour l'Ouest canadien, les Maritimes et l'Ontario où le code est 807 seulement), 1-800-268-3411. (appel sans frais pour le Québec et l'Ontario sauf où le code est 807), et 497 7117 (Région métropolitaine de Toronto).

Un dentiste canadien en Arabie Saoudite

A. Ruprecht, DDS, MScD, FRCD(C)

Tôt un matin, dans le désert, le soleil pointe lentement à l'horizon, tandis que le muezzin appelle les fidèles à la prière. Un jour nouveau se lève en Arabie Saoudite, au coeur de l'Islam.

C'est samedi et il est 4h30. La fin de semaine, constituée du jeudi et du vendredi, vient de se terminer et une autre semaine commence. Dans un peu plus d'une heure, il faudra nous lever. Jason prendra l'autobus de 6h45 pour accomplir le trajet de 45 minutes qui conduit à Riyadh, l'école internationale de l'Arabie Saoudite, située à Khurais. À 6h45 également, on viendra cueillir Barbara qui, elle, doit parcourir 40 milles dans le désert pour atteindre l'Académie militaire du Roi Abdulaziz.

À 7 heures, je me rends au Collège dentaire de l'Université Roi Saud. En route, j'admire le ciel où brille un soleil que ne gêne aucun nuage. Il y a peu de voitures sur la route, le Roi et les principaux ministères du gouvernement se trouvant à Taif, la capitale estivale. Ils retourneront à Riad seulement après avoir accompli leur Hadj. Je songe aux questions qu'on m'a posées durant ma visite au Canada, l'été dernier, et à celles que je reçois par le courrier. Elles ont trait au mode de vie en Arabie Saoudite et au collège.

Un seul collège dentaire

Actuellement, le Royaume de l'Arabie Saoudite ne possède qu'un seul collège dentaire. Il est situé à Riad, la capitale du pays dont la population s'élève à environ un million d'habitants, et il fait partie de l'Université Roi Saud. Il y a encore à l'université une école de médecine, un collège d'infirmiers et collège de pharmaciens ainsi que d'autres collèges comme il s'en trouve dans les autres universités.



Le Collège dentaire de l'Université Roi Saud est une construction moderne située à Riad, la capitale de l'Arabie Saoudite.

Le Collège dentaire est nouveau: c'est seulement en mars dernier qu'en est sorti le premier groupe de diplômés. Il se composait de sept dentistes, tous des hommes.

À cause des fortes traditions musulmanes, l'éducation en Arabie Saoudite est séparée pour les hommes et pour les femmes. C'est pourquoi il y a actuellement deux collèges dentaires. Du côté des femmes, le premier groupe recruté vient d'entreprendre sa quatrième année. Quand on aura atteint le nombre maximum d'élèves par classe, il y en aura 20 pour chaque année d'études.

Hommes et femmes séparés

Les cours sont donnés séparément aux hommes et aux femmes, soit que le professeur s'adresse à un groupe directement et à l'autre simultanément grâce à un poste de télévision en circuit fermé, soit qu'il répète tout simplement son cours.

Les laboratoires et les cliniques sont également séparés. Cependant, élèves masculins et féminins peuvent avoir des patients des deux sexes.

Certaines élèves portent le voile, mais la plupart s'en abstiennent pendant qu'elles sont au collège.

Le programme des cours a été conçu dans le style nord-américain. Les élèves sont admis au collège après une année et demi (trois semestres) d'études pré-dentaires. Comme les étudiants qui songent à devenir médecins ou pharmaciens, ils suivent, durant ces trois semestres, des cours de base dans les sciences traditionnelles: la physique, la biologie, la chimie et les mathématiques. En outre, ils reçoivent des cours intensifs en anglais durant un semestre. Les cours de sciences médicales se donnent uniquement en anglais. Seuls les cours touchant la culture islamique et la langue arabe se donnent dans la langue du pays. Les études dentaires s'étendent sur neuf semestres, c'est-à-dire quatre ans et demi. Elles comprennent des cours de base en dentisterie, des cours précliniques et des cours cliniques.

L'étudiant dentaire doit encore suivre des cours islamiques et arabes obligatoires et des cours facultatifs,

Suite à la page suivante

en dentisterie ou non. Un nombre de cours est déterminé pour chaque discipline.

Des crédits sont alloués pour les cours suivis d'après le nombre d'heures de chacun. Aussi, lorsqu'un étudiant faillit un cours, il a seulement à le reprendre et non toute l'année d'études.

Pour les étudiants masculins, l'université et le collège organisent des activités sportives et des compétitions. Le football est l'un des principaux sports exercés, mais l'université est très bien équipée pour les autres sports, à partir du tennis jusqu'à l'athlétisme. Elle dispose aussi de piscines et de cours de basketball.

L'université fournit le logement aux étudiants et leur verse une allocation mensuelle. Nourriture et livres sont subventionnés.

Tout comme les universités canadiennes, le Collège dentaire de l'Arabie Saoudite accepte seulement les ressortissants au niveau universitaire, bien qu'il y ait des exceptions. L'admission est basée principalement sur les résultats scolaires.

Le collège dispose d'installations modernes, étant logé dans un immeuble construit il y a juste quelques années. La plupart du matériel utilisé pour les cours précliniques et cliniques vient de l'Allemagne et est très moderne.

La clinique dispose de compartiments cloisonnés pour chaque étudiant. Tous les professeurs doivent être diplômés dans leur spécialité et consacrer du temps à l'exercice clinique aussi bien qu'à l'enseignement et à la recherche. Pour l'exercice clinique, les professeurs sont rémunérés en surplus.

L'université et le collège appuient vivement la recherche par l'intermédiaire de conseils de recherche qui octroient des subventions aux meilleurs candidats. Actuellement, je suis moi-même en train d'étudier l'incidence de quelque 20 anomalies dentaires qui se retrouvent chez les pa-



La clinique dentaire dispose de compartiments cloisonnés pour chaque étudiant.

tients du collège; j'espère publier une partie des résultats de mes recherches dans le Journal à l'avenir. Par ailleurs, l'université encourage les conférences scientifiques et exhorte étudiants et professeurs à y participer.

Aucun théâtre

À Riad, la vie est très différente de celle de la plupart des villes occidentales. On n'y trouve ni théâtres, ni cinémas, ni boîtes de nuit. Et l'alcool est interdit dans le pays entier. Les activités sociales revêtent plutôt un caractère privé et consistent surtout en réunions d'amis. Pour faire les courses, il faut se vêtir convenablement: les hommes ne peuvent porter le short et les dames doivent se couvrir les épaules et porter des robes longues.

Seuls les hommes peuvent conduire des voitures. Aussi dois-je servir de chauffeur chaque fois que Barbara désire sortir. Nous et nos amis allons souvent dans les souks, c'est-à-dire les marchés ou bazaars, soit en simples curieux, soit pour y faire emplettes. De plus, nous visitons des amis qui ne font pas partie de l'université ou faisons des excursions dans les environs pour voir les sites naturels ou historiques les plus intéressants.

Bien que Riad soit dans le milieu du

désert, elles n'est pas entourée de sable. À cet endroit, on trouve plutôt de l'argile tassée mais très poussiéreuse. Cependant, au nord de la ville se trouve une étendue sablée, le désert An Nafud. Dans le Sud du pays, s'étend le Rub Al Khali. Il s'agit de l'un des plus grands déserts de sable au monde. Il n'est pas habité et constitue le quart du pays. Ces deux déserts sont liés par des bandes sablonneuses qui courent à l'est et à l'ouest de Riad. Nous avons visité les dunes de sable rouge à l'est de Riad, près de Mesehamiah, et piqueniqué dans des montagnes de sable mouvantes.

Près de Riad, on découvre un autre site intéressant, l'ancienne capitale de Daria'ya où se dressent, au-dessus de Wadi Hanefah, des constructions de style traditionnel.

J'espère avoir donné un bref aperçu de la vie en Arabie Saoudite et, plus particulièrement, de la vie à Riad. Tout comme, au Canada, on ne peut prétendre qu'on vit de façon identique à Halifax, Québec, Saskatoon et Vancouver, on ne peut considérer ensemble les modes de vie de Riad, Dharan-Damman et Jeddah. Peut-être aurai-je l'occasion de donner plus de renseignements dans un autre article. En attendant, Maa-as-Salaama!

En bref —

Lors de la dernière assemblée annuelle de l'Association dentaire de la Nouvelle-Écosse, le Dr Mervyn Creighton, de Kentville, en est devenu officiellement le président. Le Dr George Zwicker lui succède comme président désigné.

M. G.V. Pamenter continuera à agir comme directeur administratif tandis que le Dr S.G. Bagnall restera secrétaire général du Conseil dentaire provincial de la Nouvelle-Écosse.

Le principal orateur de l'assemblée annuelle a été le Dr W.R. Thompson, président de l'ADC, qui a parlé de l'Association dentaire canadienne et abordé les problèmes que la profession dentaire du Canada doit résoudre présentement.

Parmi les autres sujets discutés, il convient de mentionner les programmes dentaires subventionnés par les gouvernements, les ressources en personnel dentaire et la publicité institutionnelle. Les membres ont agréé par vote des normes publicitaires discutées antérieurement.

L'été dernier, les hygiénistes dentaires de la région de Montréal ont participé à un programme de sensibilisation assez spécial.

Visitant les terrains de jeu et les parcs du centre urbain de Montréal, les hygiénistes ont initié les enfants et les parents à de bonnes habitudes d'hygiène dentaire.

Elles ont de plus tenté de montrer qu'il est tout à fait injustifié de craindre le dentiste.

Elles ont aussi répondu aux nombreuses questions posées par les enfants touchant l'hygiène et les procédures dentaires.

Le ministère ontarien de la Santé a nommé un coordonnateur pour l'équipe chargée de réviser les lois sur les professions de la santé.

Alan M. Schwartz, avocat toron-

tois qui travaille pour la firme *Fogler-Rubinoff*, sera coordonnateur de l'équipe de révision pour les deux prochaines années. L'équipe fera des recommandations au ministre de la Santé, Keith Norton, au sujet des professions médicales qui devraient être gouvernées par des lois et sur la façon dont les lois gouvernant les professions devraient être modifiées.

M. Schwartz jouit d'une expérience dans la formulation des politiques publiques et il sera assisté par MM. James D. Fisher et Morrey M. Ewing du *Canada Consulting Group Inc.* de Toronto.

Cette firme est reconnue pour fournir aux ministres, aux agences, aux groupes d'étude et aux commissions parlementaires des gouvernements fédéral et provinciaux des conseils touchant les politiques publiques.

Le Conseil canadien des normes (CCN), l'organisme national de coordination en matière de normalisation volontaire, a agréé l'Association canadienne de normalisation (ACNOR) comme organisme de certification au sein du Système de normes nationales (SNN) du Canada.

L'ACNOR est agréée depuis 1974 comme organisme formulant des normes au sein du SNN, lequel est une fédération d'organismes indépendants du Canada s'occupant de normes. Grâce au nouvel agrément qui lui est consenti, l'ACNOR a maintenant le droit de certification. Il s'agit d'une procédure suivant laquelle un produit, un service, un appareil, une installation ou un système est jugé conforme à des normes précises ou à d'autres documents reconnus. En vertu de l'agrément, le CCN reconnaît que l'ACNOR a le droit de certification pour un grand nombre de sujets comprenant:

les produits, procédés et services liés à l'électricité et à l'électronique, à partir des décorations de Noël jusqu'aux principales pièces des centrales nucléaires;

les techniques médicales, y compris les appareils d'anesthésie et les emballages de sécurité pour les

drogues;

les produits de sécurité au jeu et au travail, tels les échelles, les scies mécaniques, les casques protecteurs de hockey et les bicyclettes.

Le monogramme de l'ACNOR apparaît sur plus d'un demi billion de produits vendus au Canada chaque année.

Les CDSPI désirent rappeler aux diplômés dentaires 1983 qu'il est toujours temps de déposer une demande pour les régimes d'assurance qui leur sont offerts gratuitement par l'ADC.

Si vous avez reçu votre diplôme cette année, vous pouvez être gratuitement protégé jusqu'au 31 décembre 1983 et être admissible sans examen médical au Régime d'assurance des dentistes du Canada.

Pour obtenir plus de renseignements et déposer votre demande, veuillez communiquer avec les CDSPI en composant:

1 800 268 5418 l'Ouest canadien, les Maritimes et la région de l'Ontario dont le code est 807

1 800 268 3411 le Québec et l'Ontario, sauf la région dont le code est 807 497 7117 la région urbaine de Toronto.

Récemment, l'Association dentaire du Manitoba adressait, dans son bulletin, une mise en garde aux parents contre les rince-bouche.

Plusieurs rince-bouche populaires, avec ou sans fluorure, comme *Listerine*, *Listermint* fluoruré et *Scope*, contiennent de l'alcool. Certains se présentent dans une couleur attrayante et sont généralement mis à la portée de tous les membres de la famille, y compris les jeunes enfants. À cause de ces deux raisons, il n'est pas rare que ceux-ci en boivent accidentellement.

Suivant le bulletin, un grand nombre de parents ignorent le haut degré d'alcool que contiennent les rince-bouche communs. Des trois marques citées, *Listerine* en compte 23 pour cent, *Listermint* en compte 14 pour cent et *Scope* en contient un pour-

Suite à la page suivante

En bref (continué)

centage indéterminé.

Le même bulletin recommande en outre aux dentistes de distinguer clairement les "lave-bouche" avec fluorure et les rince-bouche fluorurés, quand ils indiquent aux patients et aux parents comment utiliser sûrement ces préparations pour prévenir les caries.

L'Association dentaire américaine (ADA) a demandé aux dentistes des États-Unis de continuer à protester contre une proposition du gouvernement fédéral de Washington visant à taxer les régimes d'assurance-maladie offerts comme avantages aux travailleurs.

Suivant cette proposition, les employés devront payer au gouvernement fédéral un impôt sur le revenu et un impôt de sécurité sociale pour une partie des primes d'assurance-maladie acquittées par leurs employeurs.

Le président de l'ADA, le Dr Burton H. Press, a déclaré que les régimes d'assurance dentaire seront l'un des avantages le plus sévèrement touchés si un tel impôt entre en vigueur.

"On peut s'attendre à ce que les employés renoncent à leur régime d'assurance dentaire pour éviter de payer des impôts plus élevés, a-t-il ajouté. Pour eux, l'abandon des soins préventifs peu coûteux pourra signifier des traitements plus dispendieux plus tard."

L'ADA exhorte les dentistes américains à protester contre l'impôt proposé en écrivant à leur sénateur ou à leur représentant auprès du gouvernement fédéral.

La Société des prothésistes de la Colombie-Britannique vient d'élire de nouveaux officiers.

À la présidence, succédant au Dr Basil Plumb, se trouve le Dr Harry Gelfant. Le Dr Dennis Nimchuk occupe la vice-présidence et le Dr Bernard Legatto, le poste secrétaire-trésorier.

Le Conseil des thérapeutiques dentaires de l'Association dentaire américaine (ADA) a récemment approuvé des projets pour l'établissement d'un programme d'information sur les drogues.

Les drogues visées seront celles qui causent des problèmes parce que le patient a de la difficulté à comprendre leur utilité et leurs effets secondaires.

On distribuera des bulletins qui informeront le patient au sujet du bon usage des drogues obtenues avec ou sans ordonnance et de leurs effets secondaires possibles. Les dentistes pourront se procurer ces bulletins auprès de l'ADA pour les distribuer à leurs clients.

L'Association médicale américaine a lancé un programme semblable en 1982. Toutefois, parce qu'une même drogue peut être utilisée différemment en dentisterie, le Conseil de l'ADA a fait remarquer que le programme de l'AMA fournissait des renseignements au patient du médecin et qu'il se pouvait que ceux-ci ne soient pas utiles pour le patient du dentiste.

Durant la dernière récession économique, plusieurs dentistes américains ont fait preuve de générosité envers leurs clients, allouant une plus grande marge de crédit à ceux qui avaient perdu leur emploi.

Aussi le Dr Burton H. Press, président de l'Association dentaire américaine, a-t-il tenu à les féliciter et, au nom de toute la profession, à leur exprimer sa fierté.

"Je me réjouis de votre conduite, a-t-il dit, et je suis d'avis que tous les membres de la profession en soient informés."

Dans la riantة Californie, les dentistes ne manquent pas d'imagination pour attirer les clients.

Ainsi, chaque matin, le Dr Stephen Howard revêt son uniforme de travail qui se compose de collants blancs, d'une culotte bleue et d'une cape rouge arborant une dent comme emblème. Et à l'instar du Surhomme, ce pédodontiste de la Californie se fait

appeler *Dr. Supertooth!*

Un autre, le Dr Stephen Hook, divertit ses patients en leur faisant écouter des blagues au moyen de cassettes et d'écouteurs qu'il remet à ses patients pendant qu'il les soigne.

"Une cliente rit tellement qu'elle e secoue tout le fauteuil," a-t-il noté.

Pour sa part, le Dr John Puttkammer, de Escondido, est un amateur de golfe enthousiaste. Aussi a-t-il conçu son cabinet de manière à y aménager un golfe miniature dans la salle d'attente. Il ne prend pas la peine de vérifier si ses patients sont adroits, mais il leur fournit quand même des bâtons de golfe.

Enfin, à Oxnard, les Drs Barry Cantor et Mark Lisago sont des dentistes pour enfants qui ont décidé de faire concurrence aux héros de l'espace pour plaire à leurs jeunes clients. En effet, leur cabinet, dessiné par un architecte local, comprend un comptoir où l'on s'inscrit pour les voyages dans l'espace, le tableau de bord d'un engin spatial et des jeux vidéo pour amuser les astronautes en herbe.

"Quand vient le moment de se faire soigner, l'enfant commande: Ouvre-toi. Une infirmière presse un bouton et, alors, s'ouvrent des portes donnant accès à un tunnel en aluminium qui débouche sur un autre âge," a expliqué le Dr Cantor.

L'Association dentaire américaine (ADA) a demandé aux dentistes des États-Unis de continuer à protester contre une proposition du gouvernement fédéral de Washington visant à taxer les régimes d'assurance-maladie offerts comme avantages aux travailleurs.

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Treatment of gingival recession

C.G. Ibbott, DMD (FRCD(C))
Regina, Sask.

ABSTRACT

Teeth may be predisposed to recession due to a lack of attached gingiva and tooth malposition. Roots may be prominent and osseous dehiscences may be present.¹ Recession can be precipitated by vigorous toothbrushing, laceration, recurrent minor inflammation or iatrogenic factors.¹

Failure to recognize and treat such problems may lead to inflammation, sensitivity, root caries and problems of esthetics. Areas of recession which are not sensitive and which do not present with esthetic problems may be monitored if the tissue bordering the recession is healthy.² However, if the tissue is inflamed because of inadequate keratinized tissue and despite good home care, then a free gingival autograft may be appropriate to increase the zone of attached tissue. The free gingival graft is the most versatile technique available for increasing the band of attached gingiva.¹ It may be used to add gingiva in virtually limitless amounts, as the palate may be used repeatedly as a gingival donor site.¹

The purpose of this paper is to discuss current modalities of treatment applicable to areas of recession which are sensitive or which present problems of esthetics. These cases should be considered for root coverage therapy.

The surgical treatment of localized recession is presented in the following case types — proceeding from simpler to more complex therapy.

Case Type A (Figs. 1, 2 and 3) — A localized recession with a good thickness of keratinized gingiva and thick alveolar bone on a neighbouring tooth or edentulous area. The treatment of choice for such a case would be the lateral pedicle flap.³ This technique involves making vertical incisions on each side of the gingival cleft and a horizontal incision at the base; the inflamed gingiva is then excised. Another vertical incision is made to include a papilla, either mesial or distal to the defect, and the incision is extended well into the alveolar mucosa. A full-thickness flap is raised, leaving a collar of tissue around the donor tooth to prevent alteration of the gingival mar-

SOMMAIRE

Les dents peuvent avoir tendance à la rétraction parce que les gencives qui y sont attachées n'offrent pas un support suffisant ou parce que les dents elles-mêmes ne sont pas en bonne position. Il se peut alors que les racines deviennent proéminentes et donnent lieu à des déhiscences osseuses¹. Le retrait dentaire peut encore être causé par un brossage trop vigoureux, des déchirures aux gencives, des inflammations mineures répétées ou des facteurs iatrogènes¹.

Si l'on n'identifie pas ces problèmes ou qu'on les néglige, il peut en résulter des inflammations, des douleurs, des caries radiculaires et des problèmes d'esthétique. Pour les parties où il y a retrait qui ne sont pas sensibles et qui ne présentent pas de problèmes esthétiques, une bonne surveillance suffira à la condition que les tissus voisins soient sains². Cependant, si les tissus sont enflammés à cause d'une kératinisation insuffisante et malgré une bonne hygiène, une autogreffe gingivale libre pourra être indiquée pour accroître la partie de la gencive liée aux dents. Il s'agit de la technique la plus souple qui soit pour ce genre d'opération¹. On peut y recourir pour consolider les gencives en prélevant des tissus palataux en quantité presque illimitée, ceux-ci constituant une source de prélèvement pour ainsi dire inépuisable¹.

Dans cet article, on discutera les traitements actuels qui conviennent pour les retraits qui entraînent des douleurs ou causent des problèmes d'esthétique. On doit songer à traiter ces cas avec des thérapies radiculaires.

Dans les cas types suivants, on décrira des interventions chirurgicales pour des retraits localisés. On commencera par des traitements simples pour passer ensuite à des traitements plus complexes.

gin. A full-thickness flap has a better chance of survival in root coverage therapy than a split-thickness flap. The flap is moved the dimension of one tooth into the defect and is sutured securely with either 4-0 or 5-0 suture material. The flap is compressed against the root with a saline moistened

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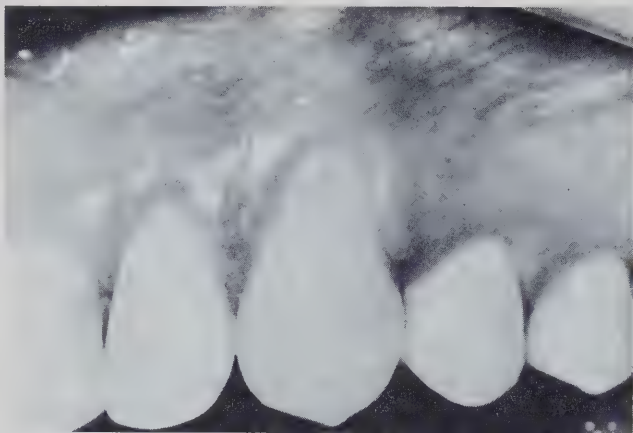


Fig. 1 — Recession and abraded root, tooth #23.



Fig. 4 — Recession — #31.

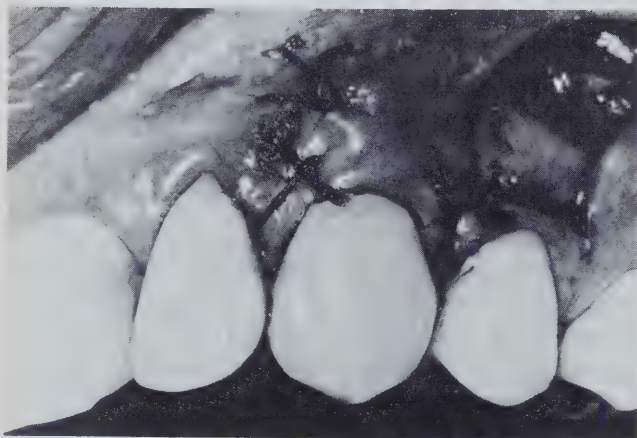


Fig. 2 — Lateral pedicle flap in position from #24.



Fig. 5 — 60 day postoperative after using pedicle flap revised.



Fig. 3 — 30-day postoperative.



Fig. 6 — Recession #24.

sponge for five minutes before placement of a periodontal dressing. The dressing and sutures are removed after one week and the area is usually dressed again for a second week.

Case Type B (Figs. 4 and 5) — A localized recession with a good thickness of keratinized tissue but thin alveolar bone on a neighbouring tooth. The treatment of choice may be the laterally positioned pedicle flap revised technique.⁴ A full-thickness flap is raised in the area nearest the recession, but in the distal aspect of the pedicle a compromise is made. A split-thickness flap is used here to protect the thin bone over the donor tooth and to maintain the level of the gingival margin.

Case Type C (Figs. 6 and 7) — A localized recession with a good thickness of keratinized tissue on the donor tooth but the presence of bone fenestrations or dehiscences. The treatment of choice may be the laterally positioned pedicle flap revised technique, with the addition of a free gingival autograft over the donor tooth to prevent recession.⁵

Case Type D (Figs. 8 and 9) — A localized recession with insufficient keratinized gingiva and thin bone or the presence of fenestrations or dehiscences on the donor tooth. The treatment of choice may be a combination of a connective tissue pedicle flap with a free gingival graft placed above it.⁶ A recipient bed is prepared to receive a free gingival autograft, leaving connective tissue over bone. On either side of the recession, connective tissue pedicles are prepared with oblique incisions. The pedicles are secured with suspensory sutures over the recession and a free gingival graft is placed over the pedicles to completely cover the recession. The pedicles aid in revascularization of the tissue over the recession. This technique is not to be confused with the double papillary repositioned flap procedure which is actually a variation of the lateral pedicle flap.

Case Type E — Multiple areas of recession. The treatment of choice may be the free gingival autograft. In the past, the coverage of exposed roots by using the free gingival graft has not been considered predictable.⁷ Miller⁸ has achieved 100 per cent coverage in 73 per cent of cases treated. The exposed roots were planed with curettes until the root surfaces were flattened. Although a graft thickness of approximately 1 mm seems adequate to maintain vascularity, in a graft placed over the periosteal bed it seems that a thickness of 2 mm is required when attempting a coverage. A bed is prepared so that the graft will fit directly into the existing papillae in the form of a butt-type joint. A suitable width of tissue would still leave the majority of the graft on a periosteal base. When using free soft-tissue autografts for root coverage, Miller utilizes the application of citric acid for five minutes. Demineralization of dentine *in situ*, using citric acid pH 1 for 3-5



Fig. 7 — 30 day post-op after pedicle flap revised with graft.

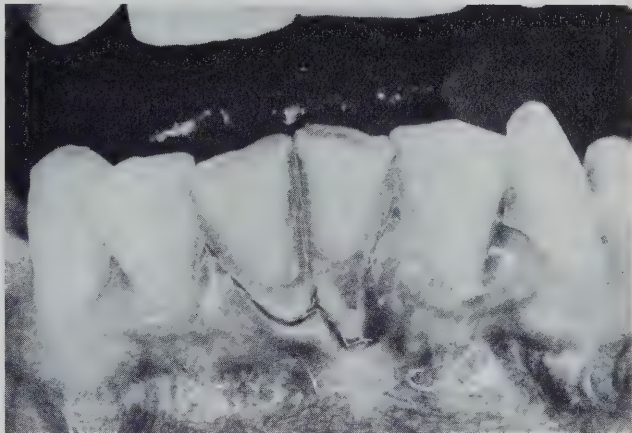


Fig. 8 — Recession 41/31.



Fig. 9 — 60 day post-op after using connective tissue pedicles over #31 and a graft sutured above the pedicles.

Continued on next page

minutes may aid in connective tissue attachment.⁹ Citric acid may also accelerate the formation of cementum on dentin surfaces as well as having antibacterial properties. Prior to demineralization, the root surface is planed to dentine and the acid applied to the root surface with cotton pellets, using a burnishing motion (a new pellet is used every minute). Care is taken to minimize soft tissue contact with the acid. Citric acid is obtained through Fisher Scientific* in an anhydrous form. The crystals are added to distilled water with agitation until a saturated solution has been achieved. After filtering and pH testing, the acid is ready for use. It is presumed that without the use of citric acid, reattachment to the denuded root is via a long junctional epithelium, while with citric acid a fibrous connective tissue attachment is achieved.⁹

A conventional free gingival graft may also be coronally re-positioned over an area of recession after 30-90 days.² The procedure is effective but the disadvantage is the necessity of a second procedure. Sullivan and Atkins⁷ projected that the width and depth of a gingival recession was an important consideration in obtaining root coverage. The findings of Miller⁸ indicate that deep-wide and shallow-wide areas of gingival recession may not be less predictable to cover than deep-narrow and shallow-narrow areas of gingival recession. Abraded root surfaces that have been properly prepared do not appear to be a deterrent to root coverage.

In any of the root coverage treatments, several factors seem critical to success. Prominent roots, with or without abrasion, may require considerable root planing to place them within the existing alveolar architecture. It is critical to maintain close fit of the grafts to their beds. The use of interproximal and sling type sutures is advocated, particularly when utilizing the free gingival autograft for root coverage. In some instances, it may help to place a piece of absorbable hemostat (oxidized regenerated cellulose) over the flap or graft and to place a drop of cyanoacrylate over the material to aid in stabilization. Periodontal pack may then be placed over this material. Interdental bone should be coronal to the cemento-enamel junction if cemental coverage is to be expected. Flaps or grafts which are less than 1 mm in thickness have a poor survival rate in coverage therapy.

SUMMARY

Areas of recession may not always require therapy. In some instances the placement of a graft to prevent or stabilize a recession may suffice. When sensitivity or esthetic problems are a concern, the clinician should not hesitate to attempt root coverage as surgical corrective procedures are attaining good success levels. Over 70 per cent root coverage has been shown for the pedicle flap and the free gingival autograft.

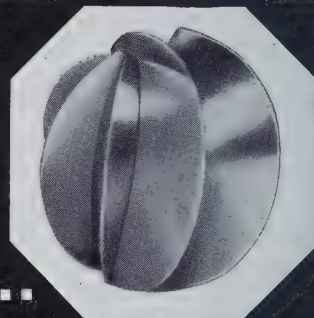
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REFERENCES

1. Hall, W.B. Present status of soft tissue grafting. *J Periodont* 48:587, 1977.
2. Matter, J. Free gingival grafts for the treatment of gingival recession. A review of some techniques. *J Clin Periodont* 9:103, 1982.
3. Grupe, H.E. Modified technique for the sliding flap operation. *J Periodont* 37:491, 1966.
4. Espinel, M.C. and Caffesse, R.G. Lateral positioned pedicle sliding flap-revised technique in the treatment of localized recessions. *Int J Periodont Restor Dent* 5:43, 1981.
5. Espinel, M.C. and Caffesse, R.G. Lateral sliding flap with a free gingival graft technique in the treatment of localized recessions. *Int J Periodont Restor Dent* 6:23, 1981.
6. Carvalho, J.C., Pustiglioni, F.E. and Kon, S. Combination of a connective tissue pedicle flap with a free gingival graft to cover localized gingival recession. *Int J Periodont Restor Dent* 4:27, 1982.
7. Sullivan, H.C. and Atkins, J.H. Free autogenous gingival grafts III. Utilization of grafts in treatment of gingival recession. *Periodontics* 6:152, 1968.
8. Miller, P.D., Jr. Root coverage using a free soft tissue autograft following citric acid application. *Int J Periodont Restor Dent* 1:65, 1982.
9. Albair, W.B., Cobb, C.M. and Killoy, W.J. Connective tissue attachment to periodontally diseased roots after citric acid demineralization. *J Periodont* 53:515, 1982.

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Historical perspectives of mucogingival surgery

Donald W. Povey, DMD
Regina, Sask.

ABSTRACT

A dentist whose practice includes the rendering of periodontal treatment will devote a substantial amount of time to dealing with morphologic and inflammatory problems occurring at or in the vicinity of the mucogingival junction. Periodontal therapy currently utilizes several surgical techniques designed to correct such mucogingival problems as inadequate keratinized gingiva, pockets extending apical to the mucogingival junction, excessive tension exerted by frenal attachments, inadequate depth of the vestibule, and localized gingival recession.

Aberrations in the relationship between the attached gingiva and alveolar mucosa have long been recognized as detrimental to the maintenance of periodontal health. Such aberrations have also been recognized as complicating factors in the performance of periodontal surgery.

As early as 1931, the problem of gingival recession related to improper toothbrushing technique was described by Hirschfeld,¹ and in 1952, the situation of periodontal pockets extending apical to the mucogingival junction was referred to by Schluger.² The author noted the necessity of lowering the expectations of results following periodontal surgery in such a situation.

There have been several directions in the development of mucogingival procedures, and the purpose of this review is to trace these lines. Surgical techniques have been grouped together for discussion on the basis of the appropriate over-riding philosophy.

EXCISION of EXISTING GINGIVA

Early surgical procedures aimed at augmenting the zone of attached gingiva were devised by Fox and Schluger and were reviewed by Friedman³ in 1957. Fox devised the pushback operation to deal with pockets extending beyond the mucogingival junction in posterior regions of the mouth. In this procedure, a full-thickness flap is made following removal of the gingiva to eliminate the pocket. The flap is raised and trimmed back, as necessary, until considerable bone is exposed, and a dressing is placed over the incised portion of the flap. Schluger recognized the need for deepening the vestibule and modified the pushback procedure by inserting the periodontal

SOMMAIRE

Le dentiste qui donne des traitements parodontaires consacre une bonne part de son temps aux problèmes morphologiques et inflammatoires qui se développent à la jonction vestibulaire ou près de cette partie. La parodontologie a recours actuellement à plusieurs techniques chirurgicales conçues pour corriger des problèmes comme l'insuffisante kératinisation des gencives, les culs-de-sac s'étendant de la partie apicale à la jonction vestibulaire, les tensions excessives dues aux attachements agissant comme frein, la profondeur insuffisante du vestibule ou le retrait localisé des gencives.

On reconnaît longtemps que les aberrations dans le rapport entre les gencives attachées et la muqueuse alvéolaire nuisent à la santé du parodonte. On reconnaît également que de telles aberrations apportent des complications lorsqu'on effectue des traitements chirurgicaux parodontaires.

Dès 1931, Hirschfeld faisait état du problème du retrait des gencives dû à une mauvaise façon de se brosser les dents¹ et, en 1952, Schluger faisait allusion aux culs-de-sac s'étendant de la partie apicale à la jonction vestibulaire.² Dans ce cas, fait-il observer, on ne peut s'attendre à de bons résultats quand on pratique une opération au parodonte.

La mise au point des traitements muco-gingivaux a suivi plusieurs orientations et le but de cet article est d'en faire la somme. Pour faciliter l'exposé, on a regroupé les diverses techniques suivant les principales écoles auxquelles elles se rattachent.

dressing between the bone and the cut edge of the mucosa, rather than over the mucosal surface. This procedure is called the pouch operation; it results in vestibular deepening in addition to the creation of attached gingiva. Modifications to Schluger's procedure were made in 1954 by Gottsegen,⁴ who recommended retention of a periosteal layer on the alveolar bone, and in 1957 by Hileman,⁵ who recommended placement of a preformed acrylic splint into the mucosal incision in place of a periodontal dressing.

In 1962, the concept of mucosal incision with periosteal retention was elaborated upon by Corn⁶ and by Robinson and Agnew,⁷ the following year. Corn referred to his pro-

cedure as "periosteal separation" and Robinson and Agnew to theirs as "periosteal fenestration". Both reports described retention of periosteum over most of the bone, and incorporation of a narrow zone of periosteal removal at the apical aspect of the incised area. The rationale for this was based on the fact that newly created gingiva in the lower anterior region is often lost over a period of time, due to persistent mentalis muscle tension on the new gingiva. The "fenestration" or "separation" of the periosteum was designed to definitively sever the repositioned mentalis muscle fibres, thus eliminating tension on the gingiva.

The controversies regarding periosteal removal or retention and the extent and type of mucosal incision were discussed in a series of papers by Bohannon in 1962^{8,9} and 1963.¹⁰ Essentially, the results indicated that denuding the bone of periosteum is the only way to predictably achieve a significant increase in vestibular depth. This approach, however, results in the occurrence of severe postoperative pain. It was also found that the final increase in vestibular depth bears no relationship to the depth of initial incision or to the width of surgically created denudation. In each instance, any previously existing keratinized gingiva was excised as part of the surgical procedure.

PRESERVATION and APICAL POSITIONING of EXISTING GINGIVA

Another approach to surgical treatment of periodontal pockets extending to or beyond the mucogingival junction — that of preserving and repositioning any existing keratinized tissue, was originated by Nabers in 1954.¹¹ He recommended the raising of a flap consisting of the marginal and attached gingiva and the alveolar mucosa and positioning the entire complex apically, so that the free gingival margin coincides with the alveolar bone margin.

In 1957, Ariaudo and Tyrrell¹² advocated this concept of gingival retention but recommended placement of the free gingival margin apical to the alveolar bone margin, thus creating a zone of attached gingiva wider than that which existed previously.

This line of thought was elaborated upon by Friedman¹³ in 1962. Friedman, whose 1957 paper has already been reviewed, had long regarded the discarding of existing keratinized gingiva (even in cases of mucogingival involvement) as incorrect. He advocated a procedure incorporating an internal bevel incision, so that as much gingiva as desired could be retained as part of the flap. During wound closure, this gingiva is positioned apically relative to its original position, and its positioning results in a vestibular extension which is stable and does not diminish as healing progresses. In addition, the postoperative increase in vestibular depth can be predicted at the time of surgery — something that cannot be done when using a mucosal incision according to Bohannon.

While inadequate vestibular depth, periodontal pockets extending beyond the mucogingival junction, and inade-

quate quality and quantity of attached gingiva were recognized as problems requiring correction throughout this period, the problem of excessive tension exerted on the gingival tissues by frena was also being considered. Surgical correction, either by excision or by incision at the mucogingival junction, was advocated by Goldman,¹⁴ Gottsegen,⁴ and Stewart.¹⁵

It gradually became more apparent that when examining any clinical case exhibiting inadequate vestibular depth, pockets extending apical to the mucogingival junction, inadequate attached gingiva, or excessive frenal tension, the centre of the problem was actually a relative insufficiency in quality or quantity of gingiva for a given situation — insufficient to dissipate the frenal pull, insufficient to contain pockets coronal to the mucogingival junction, or insufficient to place the vestibular fornix at a low enough level. No authors stated that deep pockets should not be treated or that large frena should not be excised, and procedures were developed to deal with these problems. But, more and more, the width of the zone of keratinized gingiva, as well as its thickness, became the centre of attention when periodontal problems involving the mucogingival junction were being considered.

As a result, a series of procedures was developed, beginning in the 1950's. In much the same manner as various mucogingival problems frequently occur together, each procedure developed to treat them usually accomplishes more than one single objective. For example, a procedure to specifically eliminate a frenal pull may also augment the zone of attached gingiva; a procedure done to specifically increase the zone of attached gingiva will possibly eliminate a mucogingival pocket involvement. With increasing numbers of procedures becoming available, the clinician was required to know exactly what combination of objectives each could achieve.

LATERAL POSITIONING of the GINGIVA

Along with the development of new procedures which either specifically or incidentally increased the zone of keratinized gingiva, another mucogingival problem began to receive attention — that of localized gingival recession with root surface denudation. Localized areas of gingival recession often occur as a result of inadequate width of attached gingiva to resist muscle or frenal tension. In addition, tooth position in the arch, more specifically, root position within the alveolar housing, and trauma from faulty toothbrushing techniques, are often cited as causes of localized gingival recession.

The lateral sliding flap operation was advocated by Grupe and Warren¹⁶ in 1956, as a procedure aimed at restoring gingival coverage over localized areas of recession. In so doing, the zone of attached gingiva is augmented and excessive frenal tensions, if present, are dissipated. There have been many descriptions of this technique in the literature, specifically regarding predictability and modifications.

FREE GINGIVAL GRAFTING

From the concept of moving the attached gingiva apically or laterally (or obliquely or coronally) in an attempt to treat mucogingival problems, it seemed only one step further to detach the gingiva completely and use it as a free (detached) graft to solve the same problems. Surgical gingival movement, specifically lateral, has the limitation posed by the remaining site of attachment to the mucosa. This limits the degree of movement possible and creates the necessity of having gingiva adequate in quality and quantity immediately adjacent to the area being treated.

The free autogenous gingival graft, as described by Nabers in 1966.^{17,18} and by Sullivan and Atkins in 1968,^{19,20} was developed to overcome this limitation. It is now the most versatile mucogingival procedure at our disposal, being capable of augmenting the zone of attached gingiva, extending the vestibular depth, dissipating frenal tensions, eliminating pockets transversing the mucogingival junction and, to some extent, repairing areas of localized gingival recession.

The graft-tissue is obtained from any intraoral site with adequate keratinized gingiva and good repair potential. Generally, the hard palate and edentulous ridges are considered the most desirable donor areas. The donor tissue consists of the keratinized or parakeratinized epithelium and a thin layer of connective tissue which is placed in apposition to either bone or periosteum at the recipient site. Vascular continuity with the underlying recipient bed is established during healing.

Although some shrinkage of the graft occurs during healing, this procedure is very predictable in terms of the width of attached gingiva resulting postsurgically. Friedman¹³ noted that no loss in width of attached gingiva occurs postoperatively following apical positioning of the gingiva, because of the ability of the mature gingiva to attach to underlying bone. The same applies in the case of the free autogenous gingival graft. The advantage of this procedure is that the mature gingiva can be brought from another intraoral site; it need not be present at or immediately adjacent to the site of surgery.

Many modifications to the free gingival grafting procedure have been noted in the literature. For example, Bressman and Chasens²¹ described the use of a periosteal fenestration at the apical aspect of the recipient bed in the lower incisor area with the rationale of definitively severing mentalis muscle fibres. James and McFall²² suggested complete denudation of the alveolar bone of the recipient bed, in an attempt to minimize graft shrinkage even further.

SUMMARY

At the present time, the preferred surgical modalities of mucogingival correction are those in which existing keratinized gingiva is preserved and moved into a more

advantageous position — usually by apical, lateral or coronal positioning or by complete detachment and movement in the form of a free gingival autograft.

These procedures are considered more predictable than those in which the existing gingiva is discarded and the site left to heal by scar formation.

Procedures in which the gingiva is preserved are also more versatile, being capable of achieving correction of multiple mucogingival problems in a single operation and being conducive to combination with other procedures — for example, surgical modalities of periodontal pocket therapy.

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REFERENCES

1. Hirschfeld, I. Toothbrush trauma recession. *J Dent Res* 11:61 1931.
2. Schluger, S. Surgical techniques in pocket elimination. *Texas Dent J* 70:246, 1952.
3. Friedman, N. Mucogingival surgery. *Texas Dent J* 75:358, 1957.
4. Gottsegen, R. Frenum position and vestibular depth in relation to gingival health. *Oral Surg* 7:1069, 1954.
5. Hileman, A. Surgical repositioning of vestibule and frenums in periodontal disease. *JADA* 55:676, 1957.
6. Corn, H. Periosteal separation — its clinical significance. *J Periodont* 33:142, 1962.
7. Robinson, R. and Agnew, R. Periosteal fenestration at the mucogingival line. *J Periodont* 34:503, 1963.
8. Bohannon, H. Studies in the alteration of vestibular depth. I. Complete denudation. *J Periodont* 33:120, 1962.
9. Bohannon, H. Studies in the alteration of vestibular depth. II. Periosteal retention. *J Periodont* 33:354, 1962.
10. Bohannon, H. Studies in the alteration of vestibular depth. III. Vestibular incision. *J. Periodont* 34:209, 1963.
11. Nabers, C. Repositioning the attached gingiva. *J Periodont* 25:38, 1954.
12. Ariaudo, A. and Tyrrell, H. Repositioning and increasing the zone of attached gingiva. *J Periodont* 28:106, 1957.
13. Friedman, N. Mucogingival surgery. The apically repositioned flap. *J Periodont* 33:328, 1962.
14. Goldman, H. and Cohen, D. *Periodontal Therapy*. Ed. 6. St. Louis, Mosby, 1980.
15. Stewart, J. Reattachment of vestibular mucosa as an aid in periodontal therapy. *JADA* 49:283, 1954.
16. Grupe, H. and Warren, R. Repair of gingival defects by a sliding flap operation. *J Periodont* 27:92, 1956.
17. Nabers, J. Extension of the vestibular fornix utilizing a gingival graft — case history. *Periodontics* 4:77, 1966.
18. Nabers, J. Free gingival grafts. *Periodontics* 4:243, 1966.
19. Sullivan, H. and Atkins, J. Gingival grafts. I. Principles of successful grafting. *Periodontics* 6:121, 1968.
20. Sullivan, H. and Atkins, J. Free gingival grafts. III. Utilization of grafts in the treatment of gingival recession. *Periodontics* 6:152, 1968.
21. Bressman, E. and Chasens, A. Free gingival graft with periosteal fenestration. *J Periodont* 39:298, 1968.
22. James, W. and McFall, W. Placement of free gingival grafts on denuded alveolar bone. I. Clinical evaluations. *J Periodont* 49:283, 1978.

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Psychological considerations in periodontal surgical patients

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ABSTRACT

Fear and anxiety are often seen in surgical patients, and may produce a psychological problem.^{1,2} A dentist performing periodontal surgery must keep in mind that no matter how minor a procedure appears to be, it may seem major to the patient. Some patients have few problems coping with a procedure, and a smooth postoperative course usually follows, while others may show a variety of disturbances.³ This disturbed behaviour may be avoided or lessened if the dentist takes time to explain the procedure and what the patient can expect during the postoperative period. If this explanation is successfully accomplished, any post-surgical problems which may arise will be better tolerated.

The purpose of this article is to identify aspects of the psychological state which are pertinent to periodontal surgical patients and to outline clinical applications of this knowledge to the surgical situation.

PRE-OPERATIVE PHASE

Invariably, for the periodontal patient, there is conflict between seeking treatment and the avoidance of long and painful therapy.⁴ In preparing the patient for surgical intervention, it is of utmost importance to inform him of the procedure and the fee, and to allow time for him to discuss his doubts, worries, and fears.⁵ It has been the general tendency for the patient to try to get his dentist to share all the responsibilities. This can be intercepted by telling the patient that 50 per cent of the cure is, literally, in his own hands, and depends on how he masters oral physiotherapy aids.⁶ It will help in surgical adaptation and, consequently, prevent psychological trauma postoperatively, if the dentist advises the patient about the possibilities of teeth looking longer and that exposed root surfaces may become hypersensitive post-surgically.

It is important to recognize the patient as an individual

SOMMAIRE

Très souvent, les patients chirurgicaux manifestent de la crainte ou de l'anxiété, ce qui peut entraîner un problème de nature psychologique^{1,2}. Le dentiste qui pratique une opération parodontaire doit se rappeler que si mineure que puisse être une intervention chirurgicale, elle peut sembler importante pour le patient. Certains ont peu de difficulté à maîtriser leur anxiété et se remettent vite après l'opération, alors que d'autres font paraître divers troubles³. Ceux-ci peuvent être évités ou atténués si le dentiste prend le temps d'expliquer au patient la nature de l'opération et ce à quoi il peut s'attendre après qu'elle aura eu lieu. Si cette explication est donnée de façon satisfaisante, tout problème qui pourra surgir après l'opération sera mieux accepté.

Dans cet article, on se propose de définir les facteurs de l'état psychologique qui se retrouvent ordinairement chez les patients devant subir une opération parodontaire, et d'indiquer comment se servir de ces connaissances au moment de l'opération.

when evaluating him for treatment, and the process of evaluation may, in itself, be therapeutic.^{5,6} It has been recommended to observe and interpret the patient's general behaviour and to listen carefully as he ventilates his feelings concerning his dental problems. If indicated, have the patient complete written psychological questionnaires, such as the Cornell Medical Index.⁷

The dentist-patient working relationship also plays a significant role in the therapeutic results. This relationship has to be developed in accordance with the patient's and dentist's psychology, and has three important facets — basic trust, a new unique experience for the patient, and transference between dentist and patient.⁸ It is also helpful to the therapist to become more sensitive to what is going on, consciously or unconsciously, in the patient's mind when dentist and patient are together.⁹

Continued on next page

Any surgery poses an additional demand on a person's integrating capacity and one's sense of self-esteem and security are threatened, leading to anxiety. No matter how mature the individual, anxiety due to surgery will occur, and the general strategy is to minimize fear. The difference between normal emotional stress and anxiety, and a pathologic emotional state may not always be apparent to the dentist at the first examination. The most practical approach is to be constantly alert to the degree, depth and chronicity of the emotional element. The dentist can offer emotional support, as the patient approaches him with varying degrees of trust, fear and anxiety. He can discuss the patient's dental state, how it got to be that way, what can be done, the limitations of treatment, and the alternative methods of treatment, if any. All of this will lead to mutual trust and increased satisfaction for both patient and dentist.⁸

It is believed that there are three coping styles in surgical patients:¹⁰ 1) the sensitive patient shows much anxiety, seeks immediate help and reassurance from the dentist; 2) the "sensitizer" is unable to use authoritative reassurance and must make up his own mind; 3) the "avoider" uses denial, avoids expressing a fear of surgery, and needs an authoritative recommendation for surgery. Delay is most likely to be the coping response for those who show a mixture of both defences. It is always necessary to enquire as to the expectations of the patient regarding surgery, even if the result is likely to be biologically acceptable. At times, the expectation is a magical and unrealistic one.¹¹

POSTOPERATIVE PHASE

Despite best efforts to establish rapport, the dentist will come in contact with some patients who demonstrate a poor psychological postoperative period. Three main factors can be correlated with the postoperative psychological course: expectations of surgery, level of preoperative anxiety and the use of denial.⁶ Patients who had realistic expectations or low levels of anxiety did better psychologically than those who had unrealistic expectations, a high level of anxiety, or made excessive use of denial.

It has been documented that postoperative hydroxycorticosteroid levels can be markedly elevated when the patient is highly anxious, and these patients require more pain medication. On the other hand, patients with realistic expectations of pain generally experience an easier post-surgical adaptation.^{12,14} In addition, the patient's carelessness of oral hygiene and avoidance of periodic recalls may lead to recurrent pocket depth, bleeding gingiva, tooth mobility, and root sensitivity; and consequently, may turn into an unpleasant experience of surgery.¹⁵

SUMMARY

Adequate patient preparation, establishing an early working relationship, the assessment of pre-operative

attitude and the post-surgical phase have all been discussed. No one is more appreciative of help than the disturbed and anxious patient.¹⁶ To criticize these patients is not only unscientific but is an expression of the dentist's impatience and inability to handle the situation.¹⁷ The real basis of a therapeutic relationship is that the patient must feel accepted as he really is.¹⁸ In essence, a dentist's thoughts and actions are part of his therapeutic tools. Not only are his surgical skills and instruments used, but also his attitudes and respect for human relations are important factors.

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REFERENCES

1. Deutsch, H. Some psychoanalytic observations in surgery. *Psychosom Med* 4:105, 1942.
2. Titchener, J.L. and Levine, M. Surgery as a human experience: *The psychodynamics of surgical practice*. New York, Oxford University Press, 1960.
3. Abram, H.S. *Psychiatry and surgery*. In: Comprehensive Textbook of Psychiatry/II. Freedman, A.M., Kaplan, H.I. and Sadock, B.J. Eds. Baltimore, Williams & Wilkins, 1975, pp 1759-1765.
4. Dollard, J. and Miller, N.E. *Personality and Psychotherapy*. New York, McGraw-Hill, 1950.
5. Janis, I.L. *Psychological stress: Psychoanalytic and behavioral studies of surgical patients*. New York. John Wiley & Sons, 1959.
6. Baker, E.G. and Schwabacher, E.D. Psychological considerations in periodontology. *Dent Clin N Amer* 651-658, 1962.
7. Vosburg, F. Somatopsychics in dentistry. *J Canad Dent Assoc* 9:591, 1982.
8. Miller, A.A. Psychologic considerations in dentistry. *J Am Dent Assoc* 81:941, 1970.
9. Walsh, J. Psychological defence mechanisms. *Aust Dent J* 9:455, 1964.
10. Andrew, J.M. Delay of surgery. *Psychosom Med* 34:345, 1972.
11. Duss, R.G., Symonds, F.C. and Crikelair, G.F. The problem of somatic delusions in patients seeking cosmetic surgery. *Plast Reconstr Surg* 48:246, 1971.
12. Himler, L.E. The psychogenic component in oral diagnosis. *J Oral Surg* 16:387, 1958.
13. Brusten, B. and Russ, J.J. Preoperative psychological state and corticosteroid levels of surgical patients. *Psychosom Med* 27: 309, 1965.
14. Egbert, L.D., Battit, G.E., Welch, C.E. et al. Reduction of postoperative pain by encouragement and instruction of patients. *N Engl J Med* 270:825, 1964.
15. Arce, L. Somatopsychic disease. *Psychosomatics* 13:191, 1972.
16. Land, M. Management of emotional illness in dental practice. *J Am Dent Assoc* 73:631, 1966.
17. Vosburg, F. Behavioral problems in dental practice. *J Canad Dent Assoc* 34:539, 1968.
18. Martin, D.V. Psychotherapy by the non-psychiatrist. *Proc Roy Soc Med* 56:829, 1963.

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2. Bénazet F, Dubost M. Apparent Paradox of Antimicrobial Activity of Spiramycin. *Antibiotics Annual* 1958-59:211-20.
3. Mills WH, Thompson GW, Beagrie GS. Clinical Evaluation of Spiramycin and Erythromycin in Control of Periodontal Disease. *J Clin Periodontol* 1979;6:308-16.
4. Kernbaum S. La spiramycine: Utilisation en thérapeutique humaine. *Sem Hôp Paris* 1982; 58(5):289-97.

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November
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References: 1. Ostrom, C.A. et al., J Dent Res, 56(3):212-221, 1977. 2. Arends, J., ten Cate, J.M., J Cryst Gro, 53:135-147, 1981. 3. Silverstone, L.M., Caries Res, 11 (Suppl. 1):59-84, 1977. 4. Data file at Procter & Gamble, Inc. 5. Mobley, M.J., J Dent Res, 60(12):1943-1948, 1981. For further information, please contact Crest Professional Services, P.O. Box 355, Station A, Toronto, Ontario M5W

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Dentaire
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Editorial

737

Dr. Marvin Klotz observes that the average dentist is still "locked into the 'four walls' syndrome." Dentists should break from this and communicate in a meaningful way with their colleagues, he says.

Letters

741

Dean Ralph Brooke of the University of Western Ontario dental faculty congratulates the Journal's Scientific Editor for reprinting an important conference report.

Dr. William G. Hazell of Hamilton, Ont., also commends the Journal's Scientific Editor.

The president of the Canadian Dental Hygienists' Association points out that hygienists play an important role in the prevention and attempts to eliminate periodontal disease.

President's Remarks

742

Dr. R. N. Hicks has a message for the profession.

News

744

Swimming pool tooth erosion hazard detected in the U.S.

A pH imbalance in swimming pool water has led to cases of tooth erosion among some competitive swimmers, a Virginia dentist has discovered.

745

Montréal is setting for conjoint CDA-ODQ Convention in 1984

Montréal will play host to the conjoint CDA-ODQ Convention, which will be held April 8-12, 1984.

746

Dr. William Thompson is guest speaker at Canadian Forces dental school graduation ceremonies.

Dr. William R. Thompson, as the then President of the CDA, was guest speaker at the mess dinner during this year's Dental Services School graduation ceremonies at CFB Borden, Ont.

749

CDA Member Services: CDA presents a Brief on Pensions

As part of its services to members, CDA presented a brief to the Parliamentary Task Force on Pension Reform.

751

Eighty-year-old Canadian periodontist is enthusiastic observer during recent exchange visit to China

Dr. Charles H. Williams, of Mississauga, Ont., former head of the department of periodontics at the University of Toronto dental school, showed amazing vitality during a recent visit to universities and hospital centres in China.

753

Canadian research team testing mouthwash intended to effectively dissolve dental plaque
A University of Western Ontario research team is conducting a study of a mouthwash to dissolve dental plaque.

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Briefly

Dental news items from across Canada and around the world are highlighted.

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CDA Resource Centre

The CDA Library/Resource Centre lists articles on the subject of Anorexia Nervosa and Bulimia, available at the Library. A list of new acquisitions is also included.

Publications

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Differential Diagnosis of Oral Lesions (2nd Ed.)

"This book should appeal to both students and clinicians, who are, in general, more comfortable with visible changes such as color or images on radiographs, than with the microscopic appearances." — Ann Jarvis, DDS

759

Advances in Occlusion

"This book should be of great value to all dentists, but in particular, graduate and post-graduate students in the specialties of restorative dentistry, orthodontics, periodontics and prosthodontics." — Trevor J. Harrop, LDS, DDS, MS, PhD

760

Management of Infections of the Oral and Maxillofacial Regions

"An excellent book for a hospital library, a teaching facility, or a practitioner of oral and maxillofacial surgery." — Harry M. Amos, DDS, MSC

Scientific

771

The effectiveness of irrigation in endodontics — Sharma K.

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Factors affecting dowel (post) selection and use in endodontically treated teeth — R.S.

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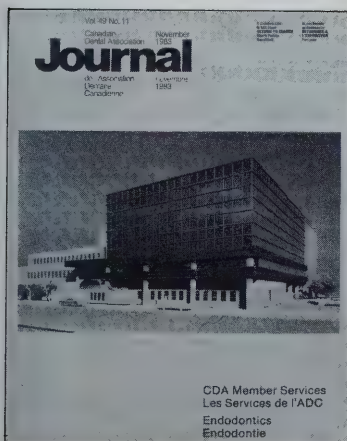
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ISSN0709 8936

Cover Story: see page 741

CDA Member
Services

Endodontics

Journal

de l'Association
Dentaire
Canadiennenovembre
1983

Éditorial

- 738 Selon le Dr Marvin Klotz, le dentiste moyen ne s'est pas affranchi du syndrome des "quatre murs." Il lui appartient donc de faire effort sur lui-même et de communiquer de façon utile avec ses collègues.

Remarques du Président

- 743 Le nouveau président de l'ADC avait des remarques

Actualités

- 762 **Baigneurs, gare à la mylolyse!**
Aux États-Unis, à cause d'une trop basse teneur en pH dans une piscine, deux nageurs de compétition souffrent de mylolyse.

- 763 **Des chercheurs canadiens testent un rince-bouche qui dissoudra la plaque dentaire**
Une équipe de chercheurs de l'Université Western Ontario effectue des études sur un rince-bouche qui dissout la plaque dentaire. En Europe, les tests faits sur le même produit ont été concluants.

- 765 **Le Dr Thompson invité à la collation des grades de l'École dentaire des FAC à Borden**
Alors qu'il était encore président de l'ADC, le Dr William R. Thompson a été invité à prendre la parole lors d'un dîner servi à l'occasion de la collation des grades de l'École dentaire des Forces armées canadiennes à Borden, en Ontario.

- 766 **Montréal sera le site du Congrès mixte de l'Ordre des dentistes du Québec et de l'Association dentaire canadienne**
Du 8 au 12 avril 1984, Montréal sera l'hôte du Congrès mixte de l'ODQ et de l'ADC dans son tout nouveau Palais du Congrès.

- 767 **Services aux membres de l'ADC**
L'ADC représente la profession au près du Parlement en présentant un mémoire sur les pensions.

En bref

- 769 Un tour d'horizon des principales informations dentaires du Canada et dans le monde.
- 757 **Bibliothèque et Centre de documentation de l'ADC**
La Bibliothèque et le Centre de documentation de l'ADC présentent une liste des articles disponibles sur l'anorexie mentale et la boulimie.

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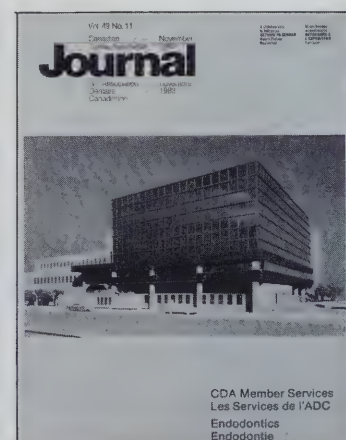
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Photo de la couverture: Voir l'historique en Page 769



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Endodontics
Endodontie

Publié chaque mois à 1815 Alta Vista Drive, Ottawa, Ont. K1G 3Y6 par l'Association Dentaire Canadienne. Copyright 1982 par l'Association Dentaire Canadienne. Autorisé comme courrier de deuxième classe, enregistrement n° 5384. Port payé — Ottawa.

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ISSN 0709-8936

CAN WE TALK?

On balance, I think writers are a much maligned group. I have never been to a *dentist* who did not fiercely denounce the last man to slip a filling into your mouth. But from my earliest day, I have benefitted from the generosity of other writers. Beyond the cocktail party sniping, there is a commitment to the craft, a tendency to help anybody who is trying to add an inch to the house." This comment by a famous author, may exaggerate the situation but it also reveals a shortcoming of our profession. All too often the only communication between dentists and even more sadly, between dentist and patient consists of criticism, negative comments and disparaging remarks. There are notable exceptions, of course, but it cannot be said that most of us practise a policy of positive reinforcement.

There are many avenues available for communicating with our peers, ranging from social contact to formal lecturing. Sharing of knowledge, for its own sake, must rank near the top of any list of criteria for professional behaviour. The cliché of a lone dentist, isolated within the confines of a solo practice, is not without some validity. If the physical boundaries have opened somewhat, the mental and emotional barriers still exist. In spite of almost incomprehensible growth in the amount, type and availability of educational opportunities, the average dentist is still locked into the 'four walls' syndrome.

Notwithstanding the proliferation of academic, clinical and 'hands on' courses, there still remains a stifling atmosphere regarding the exchange of meaningful information. We may be entering an era of *too many facts*. There is no shortage of data and technical expertise but there is a vast gulf between knowledge and application. It is the latter that determines, for the most part, our professional and personal achievements. There can be no end to learning for a professional, but knowledge that is not applied or shared is doomed to sterility.

The profession provides a veritable cornucopia of information. Clinics, seminars, weekend, and even longer, courses promise everything including new knowledge, increased scope of practice and income, and even happiness and contentment. Some of the specialities are more than generous in providing theoretical and practical knowledge. Paedodontics and Endodontics and, to a lesser extent, Periodontics can be justifiably proud of their contribution to general practitioners. Orthodontics has been accused of being less than open vis a vis 'hands on' training for dentists. Ironically, the most popular extended training courses, at the present time, are those involved with full bonded and functional appliance orthodontics. These courses are not usually run under the auspices of the dental schools and are attended by the full spectrum of practitioners — from the most to the least conscientious. How much better, for all concerned, if this type of advanced training could have been coordinated and controlled by the established institutions.

It is not the extent or type of knowledge that matters, rather it is the transfer of philosophy and rationale that extends the continuum of learning. No harm was ever done by providing an environment that allows a total grasp of concepts, causes and effects. It is the withholding of knowledge, experience and application that creates distrust and ill will. Most of us know enough, we just need a chance to mull it over in the crucible of our collective minds.

What we need is to eschew facts and return to 'chewing the fat!'

*Marvin Klotz, DDS
Member, CDA Editorial Board
Dr. Klotz is a Paedodontist
practising in Willowdale, Ont.*

CAUSONS, VOULEZ-VOUS?

“**T**out compte fait, je pense que les écrivains sont des gens très décriés. Je ne connais aucun *dentiste* qui ne critique pas féroce-ment jusqu'au dernier homme pour pouvoir effectuer une obturation. Cependant, j'ai toujours tiré profit de la générosité des autres écrivains. Au-delà des coups de griffe qu'on se donne dans les cock-tails, on remarque un culte des lettres réel, une prédisposition à aider quiconque veut ajouter une pierre à l'édifice.”

Bien que cette remarque d'un auteur célèbre exagère sans doute la vérité, elle trahit un défaut chez les membres de la profession dentaire. Trop souvent, le seul échange entre dentistes ou, ce qui est plus triste encore, entre dentiste et patient, se résume à des critiques, des remarques désobligeantes et des commentaires négatifs. Bien sûr, il y a des exceptions notoires, mais on ne peut pas dire en général que la plupart d'entre nous pratiquons une poli-tique constructive.

Il existe plusieurs moyens de communiquer avec nos semblables, à partir des réunions sociales aux assemblées savantes. En soi, le partage des connaissances doit constituer l'une des premières priorités pour tout professionnel digne de ce nom. La vieille image du dentiste exerçant seul dans son cabinet n'est pas entièrement fausse. En effet, si nous avons ouvert quelque peu l'espace physique où nous travaillons, il nous reste encore des obstacles psychologiques à éliminer. Malgré la multiplication presque incompréhensible des occasions qui nous sont offertes de nous instruire, malgré leur étonnante variété et leur surprenante accessibilité, le dentiste moyen reste prisonnier du syndrome “des quatre murs.”

Bien qu'on donne un nombre de plus en plus grand de cours académiques, cliniques et pratiques, l'échange de renseignements essentiels continue à se faire dans un climat de contrainte. Il se peut que nous soyons au seuil d'une époque où il y a *trop de connaissances*. Les données et les compétences techniques ne font certes pas défaut, mais entre le savoir et son utilisation, il y a un abîme considérable. Or, c'est l'utilisation des connaissances qui, pour une grande part, détermine nos réalisations person-

nelles et professionnelles. Il est vrai que l'éducation d'un professionnel n'est jamais terminée, mais un savoir qui n'est ni utilisé ni partagé est condamné à la stérilité.

La profession dentaire constitue une véritable mine de savoir. Les démonstrations cliniques, les séminaires, les cours de fin de semaine ou de plus longue durée promettent tout, y compris un nouveau savoir, une clientèle plus nombreuse, voire la satisfaction et le bonheur. Certaines spécialités sont plus que généreuses en fournissant des connaissances théoriques et pratiques. La pédodontie, l'endodontie et, à un moindre degré, la parodontie peuvent se louer à juste titre d'avoir parfait la formation du praticien général. En orthodontie, par contre, on s'est plaint que la formation pratique était difficilement accessible. Ironiquement, à l'heure actuelle, les cours de perfectionnement les plus populaires sont ceux qui ont trait aux appareils orthodontiques. Bien que, d'ordinaire, ces cours ne se donnent pas sous l'égide des écoles dentaires, tous les dentistes, du moins au plus consciencieux, tiennent à les suivre. Pour tous les intéressés, combien vaudrait-il mieux que de tels cours soient coordonnés et surveillés par les institutions en place.

Dans le domaine du savoir, l'étendue et le genre ne comptent guère. Ce qui importe plutôt, c'est la transmission de la philosophie et du pourquoi assurant une continuité dans le savoir. Aucun mal n'est advenu pour avoir créé un climat permettant une totale compréhension des idées, des causes et des effets. Au contraire, en ne partageant pas son savoir et son expérience, on suscite la méfiance et la mauvaise volonté. Nous possédons tous, pour la plupart, beaucoup de connaissances, mais il nous faut une occasion de les chauffer au creuset de notre intelligence collective.

Ce que nous devons faire, c'est, à l'instar de Rabelais, apprendre à “sucer la substantifique moelle” et à digérer ensemble les connaissances acquises.

Marvin Klotz, dds
membre du Conseil éditorial de l'ADC
et pédodontiste exerçant à Willowdale (Ontario).

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Congratulations to Scientific Editor

The Scientific Editor of the Canadian Dental Journal is to be congratulated on reprinting the report of the Conference on the Etiology, Diagnosis and Management of Temporomandibular Joint Disorders. It is to be hoped that practitioners will adhere to the guidelines and discontinue using modalities of treatment where there is insufficient scientific evidence for their efficacy.

In the last section dealing with behaviour therapies, biofeedback and relaxation training are mentioned and the statement is made that there is reasonable scientific support for their use. In a recent study involving almost 200 patients, Stenn and I¹ showed that relaxation training appeared to be as effective as any other conservative method of treatment for patients with jaw dysfunction. There was no addi-

tional effect when biofeedback was added to the relaxation training.

*Ralph I. Brooke, Dean
Faculty of Dentistry,
University of Western Ontario*

1. "Myofacial Pain Dysfunction Syndrome — How Effective is Biofeedback-Assisted Relaxation Training?" in *Advances in Pain Research and Therapy*. Vol. 5. Edited by John J. Bonica et al, Raven Press, New York, 1983.

.... and another

Your work as Scientific Editor is exceptional and the articles produced for the CDA Journal are always interesting, informative and appropriate. Keep up this excellent work on our profession's behalf!

One clause — "to prevent and beat the feat" — paragraph four on page 454, JCDA, NO. 7, 1983 must have

slipped by to give our whole staff an exercise in translation and a tremendous giggle. It sure makes Journals happier reading!!!

*Dr. William G. Hazell,
Hamilton, Ontario*

Editor's note: The phrase was intend-

ed to read: "to prevent and beat the fear", and we can't blame it on a translation — but rather, a lapse on the part of the proofreader. However, if it brightened some people's day, we are also happy. (This letter was sent to Dr. R.S. Turnbull, the Journal's English-language Scientific Editor.)

Hygienists 'highly skilled'

We of the CDHA read with interest the opinion article of July 1983, Dental Directions: defeat periodontal disease. It suggests a greater interest in the whole area of periodontal disease as the future direction for emphasis by dentistry.

We appreciated the favourable reference to dental hygienists as being proficient in the "cleaning" of patients' teeth. We agree that our 30 years of service in Canada have made us particularly skilled in this area. Dental hygienists are no longer dental health workers who simply help out because the dentist is too busy. We have become highly skilled in our particular area of responsibility providing a much needed service as the article suggests.

The CDHA would agree with Dr.

Roydhouse and Dr. Harrop that the "defeat (of) periodontal disease" is the way of the future. Dental Hygiene already has the clinical skills to play a significant role in this regard. However, we wish to emphasize our educational skills which render us leaders in the prevention of periodontal disease. To approach periodontal disease from the treatment point of view alone will not be sufficient. There must be public and patient education in the prevention of this disease as well as the cure.

We, therefore, see great benefits to dentists, to dental hygienists and to the public we serve in directing our thinking to the prevention and treatment of periodontal disease.

*Linda Berry,
President*

Cover Story

The cover of this edition provides a look into the future — late 1984.

That is when this new five-storey building for the Faculty of Dentistry, University of Toronto, is scheduled for completion.

The building, seen in a photo of the architect's model of the structure, is the major portion of the \$19 million construction project. It also includes adding two floors to the north wing of an existing building.

Dean Richard Ten Cate notes that the facilities have been sorely needed for several years. Space has been so limited in recent years that accommodation has been leased in a nearby commercial building at considerable cost.

The Journal staff thanks Assistant Dean (Administration) David Keeling for the photograph and particulars of the project.

Presidents Remarks

A Message from the New President of CDA

Dr. Robert N. Hicks, of Vancouver British Columbia, was elected President of the Canadian Dental Association at the national convention, held in Vancouver in September 1983. In his inaugural speech, Dr. Hicks commented on the ways in which dentistry has changed and the ways in which the national body intends to continue to serve the needs of the profession in the changing future.

It is obvious to all dentists in Canada that the practice of dentistry is experiencing dynamic change and that this change will continue throughout the remainder of this decade. Our retiring president has referred to many factors which are influencing this change. The nature of many dental treatment services may be changing but the challenge of *improving dental health* through the delivery of high quality comprehensive dental health care remains as the primary objective of the dental profession in Canada.

Prevention of disease has become an important target in all portions of the health professions. The dental profession can be duly proud of the results of its continuing program on prevention. The preventive services we provide in our offices and our constant efforts to supply information to all people in Canada has shown remarkable results. Dental decay, the loss of permanent teeth, the premature loss of primary teeth have all decreased significantly — particularly in the younger age sector — as a result of our efforts.

The problems of disease in the supporting tissues of the teeth continue to be a major problem in the management of the adult patient. Occlusion related problems, temporomandibular joint problems are requiring more and more attention. The nature of dental treatment services is changing but the challenge of improving dental health *continues*.

The demands that the dental profession are placing on their dental associations are also changing and provincial and national associations are already seeking ways to respond to this dynamic change. Increased federal and provincial government activity in all areas of health care continues. This necessitates more involvement by dental associations to present the views of the dental profession in order that high quality comprehensive dental care for all residents of Canada *remains* as the primary objective.

There is a greater need than ever before for coordination and cooperation between provincial and national dental organizations. There is a definite need at this time for provincial and national organizations to *re-evaluate* their roles and to collectively sort out which services each can best provide for the betterment of our profession —



neither can "go it alone" and respond adequately to all the needs in the new era.

Proper planning between all dental associations in Canada will result in a new "mosaic" that will support the profession in a better way than we have known before. We have been able to improve communication and now co-operation and implementation must follow.

During any period of change, professions in the health field look to their research people for new methods of treatment and new materials. So as to be more efficient and more cost-effective in the delivery of health care. Dental research in the past has proven to provide new methods for effective treatment and the demand is still upon this important area of dental activity. However, at the present time, only 3 per cent of the federal government budget for health related research is applied to dental research. The CDA will continue and enhance its request for the federal government to correct this inequity. We are all aware of the period of restraint in government spending but a positive response by the federal government to our request may well result in financial savings and increased comfort to dental patients across Canada.

Your national association has changed considerably over the past years while we continue to provide public information on dental health to administer an accreditation process for teaching facilities in Canada, to encourage and support continuing education activity, etc. — we are now participating in direct communication with the Federal Government through presentations to the departments of Health and Welfare, Finance, Revenue Canada — and to parliamentary committees on health care and pension reform — and to senate committees. Our activities have also expanded to close liaison with other professions in Canada when government issues relating to the professions as a group are identified. I see this area of activity increasing and personally I look forward to the challenge.

Remarques du Président

Message du nouveau Président de l'ADC

Le Dr Robert N. Hicks, de Vancouver, Colombie Britannique, a été élu Président de l'Association dentaire canadienne à la Convention nationale, qui a eu lieu en septembre 1983 à Vancouver. Dans son discours d'inauguration, le Dr Hicks a parlé de l'évolution de la médecine dentaire, et des méthodes que l'organisme national entend suivre pour continuer à satisfaire les besoins de la profession dans un avenir en évolution.

Tous les dentistes du Canada voient bien que l'exercice de la médecine dentaire subit une évolution dynamique et que cette évolution va continuer jusqu'à la fin de la décennie. Notre Président sortant a mentionné plusieurs facteurs qui affectent cette évolution. La nature de nombreux services de traitement dentaire peut évoluer, mais l'objectif principal de la profession dentaire au Canada demeure le défi d'améliorer la santé dentaire grâce à la fourniture de soins intégrés de santé dentaire d'excellente qualité.

La prévention des maladies est devenue un objectif important pour toutes les professions de la santé. La profession dentaire peut être fière, à juste titre, des résultats de son programme permanent de prévention. Les services préventifs que nous fournissons dans nos cabinets et nos efforts constants d'information de tous les canadiens ont occasionné des résultats remarquables. Il y a beaucoup moins de caries dentaires, de pertes des dents permanentes, de pertes prématurées des dents de lait — en particulier chez les jeunes — grâce à nos efforts.

Les maladies des tissus de soutien des dents continuent à poser un problème majeur de traitement du patient adulte. Les problèmes relatifs aux occlusions, les problèmes d'articulations temporo-mandibulaires retiennent de plus en plus l'attention. La nature des services de traitement dentaire change, mais le défi d'améliorer la santé dentaire existe toujours.

Les demandes de la profession dentaire à son Association changent également et les associations provinciales aussi bien que l'association nationale cherchent déjà le moyen de répondre à ces changements dynamiques. Les activités du gouvernement fédéral et des gouvernements provinciaux continuent à s'accroître dans tous les domaines des soins de santé. Cela oblige les associations dentaires à s'impliquer d'avantage pour présenter le point de vue de la profession dentaire, et ainsi pouvoir remplir l'objectif principal de celle-ci, qui est de fournir des soins dentaires intégrés de haute qualité à tous les résidents du Canada.

Il existe un besoin plus grand que jamais de coordination et de coopération entre les organisations dentaires provinciales et l'organisation dentaire nationale. Il est

absolument nécessaire, à l'heure actuelle, que les organisations provinciales et l'organisation nationale re-définissent leurs rôles et déterminent ensemble les services que chacune d'entre elles peut fournir pour améliorer notre profession — si elles continuent à agir seules, elles ne pourront pas satisfaire d'une manière adéquate tous les besoins des temps nouveaux.

Une bonne planification de toutes les associations dentaires du Canada produira une nouvelle "mosaïque" qui consolidera la profession. Nous avons réussi à améliorer les communications, et maintenant, il faut améliorer la coopération et l'application des décisions.

Dans toute période de transition, les professions des soins de santé demandent à leurs chercheurs de trouver de nouvelles méthodes de traitement et de nouveaux matériaux. Ainsi, elles peuvent fournir ces soins de santé d'une manière plus efficiente et plus efficace par rapport aux coûts. La recherche dentaire a démontré, dans le passé, qu'elle pouvait fournir de nouvelles méthodes de traitement efficaces, et il existe toujours une demande importante pour ce genre d'activité. Cependant, à l'heure actuelle, cette recherche dentaire ne représente que 3 pour cent du budget fédéral de recherches en matière de santé. L'ADC demandera autant et même plus que par le passé au gouvernement fédéral de corriger cette injustice. Nous savons tous que nous traversons une période de restrainte en matière de dépenses gouvernementales, mais si le gouvernement fédéral répond favorablement à notre demande, les patients dentaires de tout le Canada pourront réaliser des économies financières et jouir d'un confort accru.

Votre Association nationale a considérablement changé ces dernières années, mais elle a continué à fournir au public des renseignements sur la santé dentaire, à administrer le processus d'agrément dans les institutions d'enseignement Canadiennes, à promouvoir et à soutenir des activités d'éducation permanente, etc... Nous sommes maintenant en relation directe avec le gouvernement fédéral, grâce à des présentations à Santé et bien-être social Canada, à Finances Canada, à Revenu Canada, aux Comités parlementaires sur les soins de santé et la réforme des pensions, et aux Comités du Sénat. Nous travaillons également en liaison étroite avec les autres groupes professionnels du Canada lorsqu'il s'agit de problèmes gouvernementaux concernant les professions en tant que groupes. Je pense que ce genre d'activité va augmenter et, personnellement, je suis prêt à faire face au défi.

Swimming pool tooth erosion hazard detected in U.S.

An unusual hazard to competitive swimmers, the erosion of their tooth enamel, was detected in the U.S. recently.

Last year, a Virginia dentist treated two patients for enamel erosion which was clinically consistent with exposure to acid. On further examination, it was revealed that both patients swam competitively, training in the same pool. The pool was found to have a pH balance level of 2.7.

Although this appeared to be an isolated case, the Journal surveyed Canadian dental schools and provincial dental and environmental divisions to ascertain if such a thing could happen in Canada.

According to Dr. Gordon Niki-foruk of the University of Toronto, considered to be a leading researcher in dental enamel, such erosion could take place, given a pH factor that low in swimming pool water.

"In order for teeth to be eroded, the pH would definitely have to be low and the water acidic. Enamel is eroded by acids, generally in the range below a pH of five," said Dr. Niki-foruk. "Lemon sucking and eating candy are, of course, two of the most common causes of enamel erosion."

Although there is no specific research on enamel erosion going on in Canadian dental schools at the present time, many researchers in the dental faculties expressed interest in the U.S. cases.

Dr. John Ericson, a Canadian dental epidemiologist currently working at the Atlanta Centers for Disease Control in Atlanta, Georgia, confirmed that no research is being done in this country.

"No one in Canada has yet looked at this business of tooth erosion from swimming in pools," he said.

Difficult to detect

A survey of the provincial dental

divisions turned up no cases in any of the provinces. However, Dr. Niki-foruk said that the cause of enamel erosion is sometimes difficult to determine. Any pattern of erosion would be difficult to see. Teeth must have prolonged exposure to an acid, before they begin to erode.

Peter Block, senior consultant, public health engineering in Ontario, said a pH of 2.7 in a pool would definitely cause erosion and not just erosion of the teeth.



Besides damaging the teeth of the swimmers, Mr. Block said the eyes would be affected severely and any pipes or grout exposed to the acidic water would have been eaten away.

"Swimming in water that acidic, you might as well throw your teeth into hydrochloric acid," he said. "A swimming pool in Ontario must be maintained between 7.2 and 7.8. The only way the pH in that U.S. pool could have got so low was if the swimmers were wearing goggles, since their eyes would have been severely affected by water that acidic. Instead, their teeth took the damage," said Mr. Block.

In a survey of provincial environmental departments, the Journal learned that most provinces have either laws or guidelines governing

the pH levels in public swimming pools. In Canada, the general pH level in pool water must be between 7.2 and 7.8 in most provinces, up to 8 in others. In most provinces 7 is the lowest pH level ever recorded.

Chlorine and buffering agent

To maintain pools at an acceptable level, chlorine is mixed with a buffering agent, usually calcium carbonate. Should the pH level drop in a pool more buffering agents are added to the water to restore this level. In all the provinces, public pools are tested at least once a day by the operators and at many large pools such as the University of British Columbia Aquatic Centre, where the UBC swim team trains, the pH levels are controlled automatically.

In some provinces, the water is simply too full of natural minerals to ever cause a problem, such as in Prince Edward Island.

Les Parsons, Community Hygiene health officer in Prince Edward Island, said, "It is very rare that any type of water anywhere on the Island would be corrosive, since our water is quite hard."

In all the provinces, no dental division has ever had a case of enamel erosion reported to them by a practitioner. However, according to Dr. Clifford McCormick, head of the provincial dental division in Manitoba, other problems not necessarily related to dentistry could have shown up in competitive swimmers, swimming in an acidic pool.

"Hydrochloric acid is a pretty strong acid and if it got that strong in a pool, the eyes would burn. Also, chlorine is not that tasty," he said.

Many environmental health inspectors interviewed confirmed this viewpoint. In addition, competitive swimming pools are generally inspected

Continued page 745



1984 Convention

Congrès conjoint de l'Ordre des dentistes du Québec et de l'Association Dentaire Canadienne
Joint Convention of the Canadian Dental Association and the Order of Dentists of Quebec

Montréal

april 8-12 avril 1984

Montréal is setting for conjoint CDA-ODQ gathering

Colorful, cosmopolitan Montréal will play host to the 1984 Convention. This will be, for the first time, a conjoint gathering with the Ordre des Dentistes du Québec.

The exhibits, scientific sessions and all other Convention gatherings will be held in Montréal's recently-opened, ultra-modern Convention Centre/ Palais du Congrès, located in the heart of the city's business district and a short walk from most of the major hotels. There is even a Métro (subway) station integrated into the structure.

Dr. Michel Jahjah, general chairman for the April 8-12, 1984 Convention planning committee, reports that the scientific program is already in place and most of the other details are being finalized.

A continuing education program will precede the Convention and registration for these courses is being handled on a first-come, first-served basis.

CDA Board Meeting

The Interim meeting of the CDA

Board of Governors, usually held in March, will instead be held on April 8 and 9, in conjunction with the Convention in Montréal.

All arrangements for the Convention are under the direction of the ODQ. The host will be Dr. Marc Boucher, president of that body.

Accommodation is being arranged in some of Montréal's many modern hotels, close to the Convention Centre.

Historic and modern

Although Montréal is one of Canada's oldest and most historic cities, with a background of about 350 years, it is also as up to date as tomorrow. There are impressive office and apartment towers, spectacular shopping plazas (both above and below street level), haute couture specialty shops, theatrical and other cultural events in abundance, and an exciting range of nightlife.

As the world's second largest French-speaking urban centre, Montréal has retained all the panache

and lifestyle of the Old World. Any visitor finds the unique environment memorable.

The memory of one of the great moments of Canadian achievement and spirit — Expo '67 — lingers on at Montréal's Man and His World site, where most of the major, spectacular structures are still intact, and where a large amusement centre continues to operate.

In the 1976 Olympic Village, Montréal's vast Olympic Stadium is the best-known feature — home to the Expos Baseball team and the Concordes Football Club of the CFL.

The city has an almost overwhelming array of restaurants, many with international reputations, and cafés (indoor and outdoor). They offer an entire spectrum of international menus, and reflect Montrealers' unending passion for gastronomic adventure.

And for those whose pursuits are cultural, there are several art galleries and museums to visit.

Swimming pool hazard (continued)

and monitored for pH levels by the operators two or three times a day.

According to David Brailsford, secretary-general of the International Federation of Swimming Teachers Associations, water in a public pool in Canada would never injure tooth enamel if it was maintained properly.

"In all my years as a swimming instructor, in contact with marathon,

long distance and competitive swimmers, I have never known a swimmer to experience tooth problems due to exposure to pool water," said Mr. Brailsford.

'Important' information

Commenting further on the original U.S. cases of tooth erosion, Dr. Nikofoeruk told the Journal that it was

important from an environmental standpoint to let the profession know of this potential problem.

"This tooth erosion should never happen if pool maintenance is kept up, but the public is becoming more aware of environmental sensitivities and the profession should be informed of a potential hazard to their patients," he said.

Dr. William Thompson guest speaker at Canadian Forces dental school graduation ceremonies

Dr. William R. Thompson, Brigadier-General (Retired), former Director General of Dental Services for the Canadian Forces and immediate Past-President of the Canadian Dental Association, was the guest speaker at the mess dinner, during this year's Dental Services School graduation ceremonies at CFB Borden, Ontario.

Because he was at that time President of the CDA, Dr. Thompson spoke of the issues facing dentistry today, and what CDA is doing to face these issues and resolve problems.

He spoke of the value of CDA's Accreditation program, the dental manpower issue, CDA actions regarding the special concerns of salaried dentists, CDSPI insurance for students, CDA relations with federal government departments and agencies and urged students to support their provincial and national organizations to make them effective.

Dr. Thompson said the Dental Services Training Plan "is by far, the most comprehensive anywhere in the world." He commended Col. J.M.A. Donely on what he has achieved for the school and thanked both Brigadier-General James N. Wright and Colonel Donely for their participation on CDA's Board of Governors and the Council on Education, over the past year.

Colonel (Retired) G.R. Covey, Colonel Commandant, Canadian Forces Dental Services, was among the distinguished guests at the graduation ceremonies.

Graduation parade

The graduation parade was held on the 29th of July with Brigadier-General James N. Wright as reviewing officer and Brigadier-General R.



(1) Brigadier-General Wright is seen reviewing the Dental Officer Training Plan graduation parade.



(2) 2Lt E. McMurdo receives the Honour Candidate Award from Brigadier-General Wright, Director General, Dental Services for the Canadian Forces:

D. Leach, Base Commander, CFB Borden, also in attendance.

Twenty-two candidates had com-

pleted the Dental Officer Training Plan Phase IIIB summer training at the base this year.

During the ceremonies, Brigadier-General Wright presented the Honour Candidate Award to 2Lt E. McMurdo and the Field Exercise Award to 2Lt R.W. Hart.

DOTP Program explained

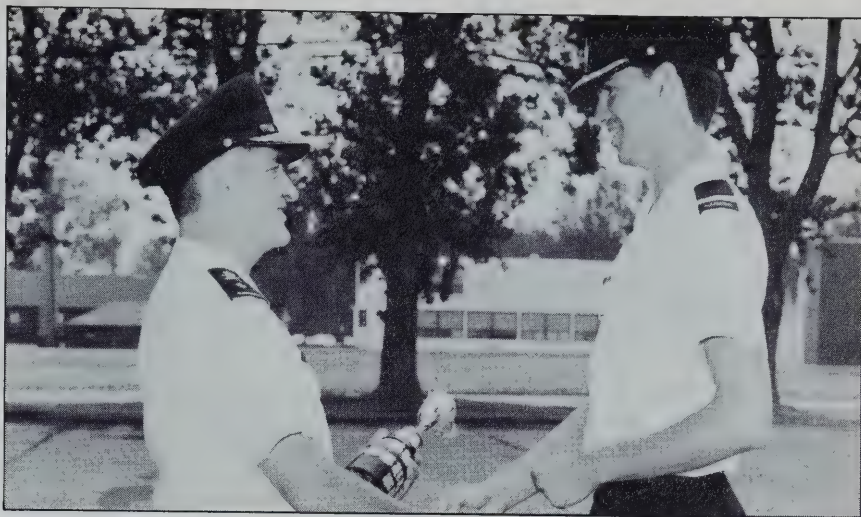
The Canadian Forces Dental Officer Training Plan is a subsidization program through which the Canadian Forces will pay virtually all a dental student's expenses for up to four years, while he is attending a dental school in Canada. This subsidy arrangement also includes a monthly salary.

Each year, dental students from dental faculties across Canada who are enrolled in the Canadian Forces Dental Officer Training Plan, undergo what the military establishment calls summer phase training. This training prepares them for their future careers as dental officers in the Canadian Forces.

On completion of their third year at dental school, students undertake Phase III summer training with the Canadian Forces Dental Services. This training is divided into two parts. In Phase IIIA, for the first weeks of the summer, students work in larger clinics across Canada, where they familiarize themselves with the military dental clinic and a Canadian Forces base environment.

On completion of this phase of their training, students proceed to the Canadian Forces Dental Services School in Borden, Ontario, where the military knowledge and skills they have learned are reinforced and formal instruction on the Canadian Forces Preventive Dentistry Program is presented. The latter part of this course involves participation on the practical application of preventive dentistry in a field situation.

The didactic portion of this training deals with the fundamentals of clinic and practice management, including documentation, charting and supply procedures.



(3) Brigadier-General Wright presents the Field Exercise Award to 2Lt R.W. Hart.

Korean dentists have same concerns as Canadians

According to the Korea Herald, the 4000 member Korean Dental Association appears to have many of the same concerns as its Canadian counterpart.

This year, one of the prime projects of the Korean Association will be to conduct guidance programs for the public on the prevention of dental disease.

Other projects being undertaken by the Korean Association this year include collecting statistics on dental patients, deciding on standards for dental instruments and facilities, and preparing for the 12th Asia and

Pacific Dental Conference which will be held in Seoul in 1986.

More than 90 per cent of the Korean population (including many children) have suffered some tooth decay, but now Korea has a government run medical insurance system, started in 1977, which provides the public with dental care.

Recommended ways to help prevent tooth decay appear to be the same in Korea, as they are in Canada. The Korean Dental Association recommends seeing the dentist regularly, brushing, fluoride and eating properly as ways to help prevent tooth decay.

CDA Retirement Savings Plan

Unit values of the Canadian Dental Association's Retirement Savings Plan stood as follows on September 30, 1983

<i>Common Stock Fund</i>	\$75.40087
<i>Fixed Income Fund</i>	\$36.90185
<i>Guaranteed Fund</i>	\$26.89581
<i>Balanced Fund</i>	\$15.32383

Total assets (market value) of the plan were \$37,857,710.

The previous month's figures, as of August 31, 1983, stood as follows:

<i>Common Stock Fund</i>	\$74.74746
<i>Fixed Income Fund</i>	\$36.05397
<i>Guaranteed Fund</i>	\$26.67438

Balanced Fund \$15.04013
Total assets (market value) of the plan were \$37,386,323.

For further information write to: Canadian Dental Service Plans Inc., Ste. 600, 2 Lansing Square, Willowdale, Ontario M2J 4Z3 or call the central information services of CDSPI at 1-800-268-5418 (toll free number for Western Canada, Atlantic Canada and Ontario for Code 807 only, 1-800-268-3411 (toll free number for Quebec and Ontario except Code 807), and 497-7117 (Metro Toronto area).

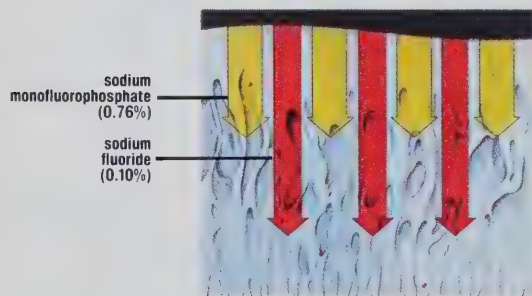
How Colgate's two fluoride formula achieves more complete remineralization resulting in nearly double the cavity protection of a single fluoride formula.*

A major role of fluoride in cavity prevention is to accelerate the process by which demineralized enamel is rebuilt (1-4). This reverses white spot lesions which would otherwise become cavities.

Today's Colgate is the first toothpaste with two fluorides—sodium monofluorophosphate at 0.76% and sodium fluoride at 0.10%. Their differing molecular structures mean these fluorides work at different levels in tooth enamel. The result, at these concentrations, is more complete remineralization of white spot lesions than either can achieve alone.

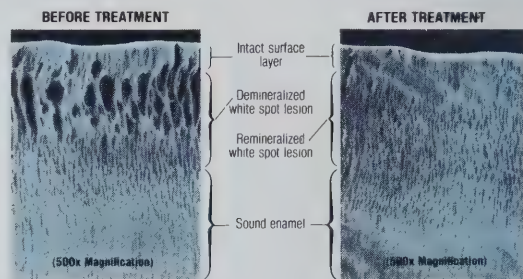
Why these two fluorides remineralize more completely.

Fluorides reach white spot lesions by penetrating enamel through the interprismatic spaces. Sodium monofluorophosphate, being a larger molecule, reacts with enamel primarily at the surface of a white spot lesion. Sodium fluoride, a smaller molecule, penetrates deeper into the lesion.



Because they work at different levels the two fluorides complement each other, enhancing remineralization over a greater area of the lesion than a single fluoride* alone.

This complementary action means more fluoride is available to enhance remineralization over a greater area of the lesion, than is provided by either fluoride alone (5,6).



This more complete remineralization has been demonstrated in laboratory studies (7), and can be seen in the photomicrographs above.

Clinical studies show nearly double the cavity reduction.

Colgate with this two fluoride concept was tested in a three year clinical study (8). The results—Colgate's two fluoride formula provided 27.0% reduction in new caries versus 13.8% for the single fluoride positive control* (DMFT).

Conclusion.

Colgate's two fluoride formula provides superior cavity protection to a single fluoride formula*: Only Today's Colgate has a two fluoride formula.

When you recommend Colgate you're recommending an innovative product—offering advanced and clinically tested cavity protection.

*Sodium monofluorophosphate (0.76%)

REFERENCES

1. Silverstone, L.M., Proc. Roy. Soc. Med., **65**, 906, 1972.
2. Koulourides, T., et al, Ann. N.Y. Acad. Sci., **131**, 771-775, 1965.
3. Von Der Fehr, F.R., et al, Caries Res., **4**, 131-148, 1970.
4. Levine, R.S., Brit. Dent. J., **138**, 249-253, 1975.
5. Slater, P.J., et al, Abstract No. 72, ORCA Conference, July 1982, Annapolis.
6. Hayes, H., et al, J. Dent. Res., **61**(4), 541, 1982.
7. Harvey, K., et al, J. Dent. Res., **61**, 243, 1982.
8. Hodge, H.C., et al, Brit. Dent. J., **148**, 201-204, 1980.



* Colgate Toothpaste contains sodium monofluorophosphate and sodium fluoride which are, in our opinion, effective decay preventive agents and are of significant value when used as a conscientiously applied program of oral hygiene and regular professional care. Canadian Dental Association.

PARTNERS IN PREVENTIVE DENTISTRY.

CDA Member Services

(Second in a series)

CDA represents the profession before parliament by presenting a brief on pensions

As part of its services to CDA members and members of the dental profession as a whole, a joint committee of several professional associations, initiated by CDA two years ago, under the chairmanship of Dr. Robert Hicks, now CDA president, presented its brief on pension reforms to the Parliamentary Task Force on Pension Reform. The presentation follows.

The results of this brief will have a direct effect on the CDA RRSP program, which is available to CDA members only.

Our associations have a very specific concern for improvements in the Canadian pension system. We will deal specifically with the pension problems that self-employed Canadians have under the present pension system and with what we feel are realistic solutions to these problems. There are more than two million self-employed citizens of Canada, made up not only of dentists, doctors, lawyers and accountants, but also other professionals, farmers, fishermen, athletes, entertainers, artists and small businessmen.

There is no doubt that there are many improvements required in our pension system for employees. We will endeavour to show why the improvements are in some ways even more essential for the self-employed.

In essence, our objective under those goals is to do our best to see that the self-employed are accorded substantially the same treatment as accorded employees under private pension plans: recognizing that the self-employed will do it out of their own personal funds.

It is important to appreciate the key differences between private pension plans for employees and the RRSP. Many registered pension plans define the benefit that the employee is to receive and it relates to final average or best earnings of the employee and his

years of service.

However, there are those private pension plans in which the benefit is a specified dollar amount for each year of service. Such plans provide virtually no inflation protection. However, the prevalence of such plans among unionized employees usually result in benefit formula increases through collective bargaining, thus offsetting the effects of inflation.

Then there is the money purchase pension plan. Limited annual contributions are made to the plan and an annuity is purchased on retirement. This is the plan which is most vulnerable to inflation. The RRSP is the equivalent of a money purchase plan.

The self-employed rely solely on the RRSP as a tax assisted pension vehicle. One of the reasons for the introduction of RRSPs in 1957 was to put self-employed persons on the same footing as employed persons covered by private pension plans. The objective was right, but hindsight shows that it did not go far enough. It was too inadequate.

This is evident today with the benefit of 25 years of hindsight:

There is no mechanism in RRSPs to take account of the severe impact of inflation.

The self-employed is not allowed to fund up his retirement plan as is allowed for employees and employers. Employees are allowed past service contributions. Employers can increase the retirement fund by past service and special contributions.

The inability of the young self-employed to fully contribute in early years of their career is not recognized. They have no catch up contribution rights.

As well, the RRSPs have no indexing for inflation.

RRSPs virtually have no inflation protection. The 1979 Economic

Council study on private pensions showed that with an inflation rate of only 6% per year the real value of a fixed dollar pension would have fallen to only 56% of its original value after 10 years. We have provided you with further up-to-date tables on this subject and these can be covered after our presentation as you may see fit.

The impact of inflation when viewed both during the earning years and after retirement leave RRSPs as the only pension plan for the self-employed in pretty bad shape.

As you are aware, the contribution limit of RRSPs is \$5,500 per year. Under such limit, a self-employed person will reach the maximum limit when he has earned income of \$27,500.

In summary on inflation, an RRSP alone, as it is now prescribed by law, will not provide adequate funds on a real dollar basis for a reasonable retirement income. A system such as the present system in Canada under which some pensioners are protected from inflation and others are not, raises crucial questions of fairness and equity.

Our recommendations are:

1. An arrangement for self-employed individuals equivalent to a registered pension plan be established as a tax-assisted retirement plan for the self-employed.
2. The income tax act be amended to provide for automatic indexing of RRSP contribution limits.
3. The base for indexing RRSP contributions be increased on a one time basis from the present \$5,500 level to compensate for the loss of real value through inflation since the last limit increase in 1976.
4. The income tax act be amended to permit catch up contributions to be made to an RRSP in respect of previous years in which maximum contributions were not made.

New Public Education Materials / Nouveau matériel d'éducation du public



No. 1

Are You Missing a Few Teeth? — explains why missing teeth should be replaced and how they are replaced with either a removable partial denture or a fixed partial denture

Cost to: CDA Members **\$18/100**
Non-Members **\$25/100**

No 13

Vous manque-t-il des dents? — explique pourquoi on doit remplacer les dents qui manquent et comment on les remplace, au moyen de prothèses partiellement amovibles ou de prothèses partielles ou ponts amovibles.

Coût aux: Membres de l'ADC **\$18-100**
Non-Membres **\$25-100**



No. 12

Do You Need Complete Dentures? — explains problems associated with total tooth loss. Readers are provided with information on how dentures are made and how to adjust and clean their dentures.

Cost to: CDA Members **\$18/100**
Non-Members **\$25/100**

No 23

Vous faut-il des dentiers? — explique les problèmes relatifs à la perte de toutes les dents. Fournit au lecteur des renseignements la fabrication, l'ajustement et l'hygiène des dentiers.

Coût aux: Membres de l'ADC **\$18-100**
Non-Membres **\$25-100**



No. 39

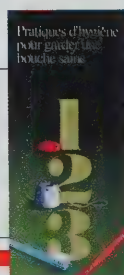
Save that Tooth — describes how the pulp of a tooth can become inflamed and/or infected and how it is treated. The pamphlet explains root canal treatment

Cost to: CDA Members **\$ 8/100**
Non-Members **\$12/100**

No 40

Sauvez vos dents — décrit comment la pulpe de la dent s'enflamme et/ou s'infecte, et comment on la soigne. Ce pamphlet explique le traitement de canal.

Coût aux: Membres de l'ADC **\$ 8-100**
Non-Membres **\$12-100**



No. 47

Do It Yourself Oral Hygiene — a colourful pamphlet which, when opened, can be displayed as a poster. It pictorially explains the basic technique for daily plaque removal.

Cost to: CDA Members **\$18/100**
Non-Members **\$25/100**

No 49

Pratiques d'hygiène pour garder une bouche saine — pamphlet coloré qui, ouvert, peut servir d'affiche. Explique visuellement la technique élémentaire d'enlèvement de la plaque quotidienne.

Coût aux: Membres de l'ADC **\$18-100**
Non-Membres **\$25-100**

Posters / Affiches (12" x 18")

Just off the press. These posters were designed to provide your patients with a dental awareness message while in your office.

Juste imprimées. Ces affiches doivent faire prendre conscience de leurs dents aux patients dans votre salle d'attente.

Cost to: CDA Members \$1.00 each **Coût aux:** Membres de l'ADC \$1.00 chaque
Non-Members \$1.50 each Non-Membres \$1.50 chaque

Poster No. 1



Poster No. 2



Poster No. 3



Affiche No 1



Affiche No 2



Affiche No 3



ORDER FORM / BON DE COMMANDE

MAIL TO/POSTEZ À: CDA, 1815 Alta Vista, Ottawa, Ontario, K1G 3Y

Circle item(s) of your choice indicating quantity and total cost. All orders be prepaid to the Canadian Dental Association.

Encercler le ou les articles de votre choix en indiquant la quantité et le prix. La commande doit être payée d'avance à l'Association dentaire canadienne.

Pamphlets/ Brochures	No	No	Quantity/Quantité	Cost/Coût
	1	13		
	12	23		
	39	40		
	47	49		
Posters/ Affiches	1	1		
	2	2		
	3	3		

Cheque enclosed for/Montant inclus \$ _____

Name/Nom _____

Address/Adresse _____

City/Ville _____ Province _____ Postal Code/Code Postal _____

CDA Membership Number / Numéro de membre _____

Eighty-year-old Canadian periodontist is enthusiastic observer during a recent exchange visit in China

He may be 80, but Dr. Charles H. Williams of Mississauga, Ont., has the vitality and enthusiasm of a man half his age. New experiences fascinate him.

Dr. Williams, who retired from active clinical practice in periodontics in April 1983 at the age of 80, was recently part of a delegation of periodontists invited to China to exchange information with Chinese specialists.

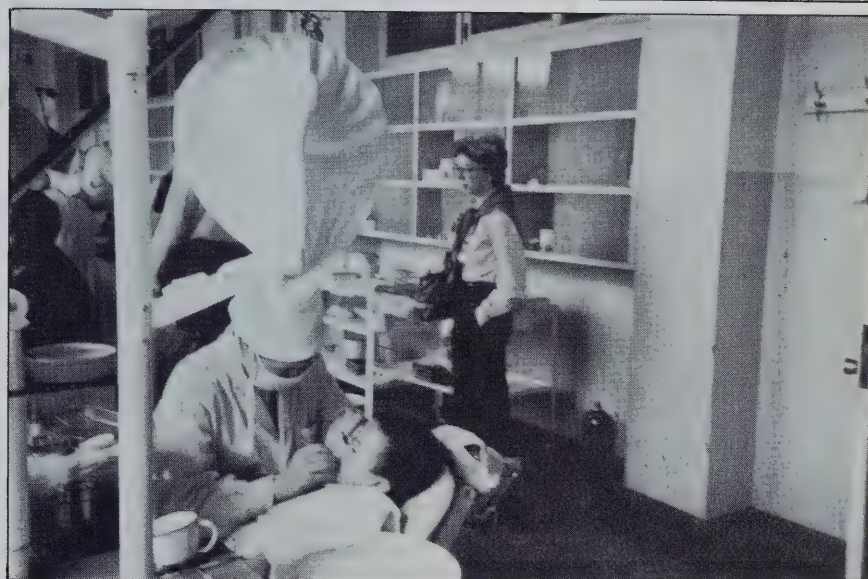
The trip to China was organized by People to People International of Spokane, Washington, an organization to foster international friendship, formed during the presidency of Dwight D. Eisenhower in the U.S. People to People International was asked to arrange for a delegation of North American periodontists to participate in academic exchanges in university and hospital centres in China. The request for the exchange of information came from an organization of stomatologists in China.

Dr. Williams went as a representative from the University of Toronto, where he was former head of the Department of Periodontics. He was one of 21 periodontists in the delegation. Of that number, two others were Canadian, Drs. Robert Clark of Calgary and Charles Yu of Edmonton. The remaining members of the delegation were from the U.S. The delegates spent almost a month in China.

"Within China our delegation engaged in academic exchanges in Beijing, Nanjing, Yangzhou, Zhenjiang, Wuxi, Suzhou and Hangzhou. In each case we spoke at a hospital before an audience of hospital staff and students. Arrangements were made by the China Academy of Science and Technology and interpreters were supplied by that organization," said Dr. Williams.

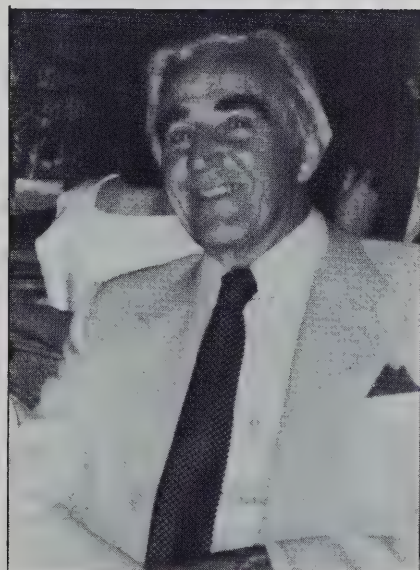
'Courteous and anxious to learn'

"Following each of our presenta-



A dental clinic in a Beijing, China, hospital, which Dr. Williams described as "the most modern dental clinic we saw."

tions, the delegates and members of the audience had discussion periods which disclosed an intense interest among our Chinese colleagues concerning the practice of periodontics in North America. The dominant impression I got was that our Chinese colleagues and their staffs are friend-



Dr. Charles Williams: a lengthy, distinguished, career.

ly, courteous and anxious to learn," said Dr. Williams.

Topics presented by the delegation included plaque control, microbiology of inflammatory periodontal disease, preventive periodontics, mucogingival surgery and the recession of gingival tissues.

"The Chinese doctors and students who made up most of the audiences we spoke to were a very small part of those responsible for dental care in China," said Dr. Williams.

"We were told that there were three levels of dental care available to the people of China: the 'barefoot doctor' who, after a few months of instruction, serves in rural communities much as a paramedic serves in the U.S. or Canada; the dentist who has two to four years graduated training, largely as a clinical technician; and the stomatologist who graduates first in medicine and then specializes in dentistry."

Using acupuncture

During their visits to various Chinese hospitals, the delegates ob-

served a curious mixture of both traditional Chinese and modern western methods of patient treatment. Traditional medicine included the use of many combinations of herbs, while sometimes surgical care involved the use of acupuncture alone, acupuncture plus moxibustion and cupping and acupuncture to induce anaesthesia for cutting procedures.

"We observed a thyroidectomy on a conscious patient, prepared and maintained by acupuncture and treatment of Bell's palsy by acupuncture at four positions on the affected area of the face," Dr. Williams told the Journal.

"At the most modern appearing dental clinic we saw in a hospital, the head of the clinic told us they do not use acupuncture because 'it takes too long and sometimes it does not work'," he said.

Home oral hygiene in China appears to be practised diligently, if in a slightly different manner than in North America.

"We saw women and men at the side of the road with a cup of water and a toothbrush, ardently cleaning their teeth and spitting in the gutter," said Dr. Williams.

While toothbrushes are plentiful and of a similar design to those available in North America, the Chinese had never heard of dental floss.

"Our Chinese colleagues enquired on a number of occasions 'What is dental floss and how do you use it?'," Dr. Williams said.

Still enthusiastic

When asked if he would return to China if invited, Dr. Williams replied "With great enthusiasm!"

Besides being the former head of the Department of Periodontics and Professor Emeritus at the University of Toronto, Dr. Williams was also a dental consultant with the Hospital for Sick Children and Dental Surgeon-in-Chief with Toronto Western Hospital.

He is also a charter fellow and



Dr. Charles H. Williams and Mrs. Williams are shown in front of a typical Chinese pagoda on a typical city street.

former president of the Royal College of Dentists of Canada, honorary Fellow of the American College of

Dentists, and a Fellow and former president of the American Academy of Periodontology.

Future geriatric treatment — posing mounting problems

An American symposium on "Clinical Geriatric Dentistry", which was held last summer, predicted a rise in the incidence of periodontal disease among older Americans.

The prediction seemed to surprise many of the 150 participants in the symposium, the first of its kind ever held. Some factors cited in contributing to this rise in periodontal disease include an apathetic attitude towards oral health, limited finances and poor nutrition.

The situation in Canada is not much brighter for elderly dental patients. By the year 2000, some 12 per cent of the Canadian population will be receiving the old age pension. In the U.S., by the year 2040, 67 million people will be over the age of 65.

Some additional problems that the

elderly dental patient may suffer from include root caries, missing teeth and ill fitting dentures. There is often a problem with access to dental offices because of stairs for example.

The U.S. symposium touched on these problems, but programs such as Senior Dent and others, available for seniors in the U.S., "may not be enough to reach the vastly underserved population," said Dr. Sidney Epstein, of the University of California at San Francisco dental school, one of the symposium's organizers.

According to the Veteran's Administration's comprehensive normative aging study, which began in 1968, periodontitis has proven to be the most prevalent disease in America's elderly.

Canadian research team testing mouthwash intended to effectively control dental plaque

A research team at the University of Western Ontario is conducting a study on a mouthwash designed to significantly reduce dental plaque, a major factor in gum disease.

The researchers, headed by Dr. David Banting, Associate Dean (Academic) at the Faculty of Dentistry, began the two-year study in mid-September. A half-million dollars in funding for the study is being provided by a U.S. company.

"Periodontal disease is still the leading cause of tooth loss in Canadian adults," said Dr. Banting. "This tooth loss is caused largely by the bacteria in plaque building up on the teeth. We expect the mouthwash will significantly reduce plaque buildup on the teeth."

The active ingredient in the mouthwash has been successfully tested in Europe on dental students. The ingredient is currently used successfully in other health care products.

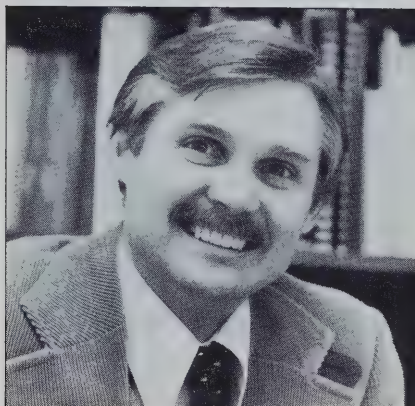
The mouthwash works by chemically dissolving the plaque, which is formed by a build-up of bacteria. "The mouthwash actually contains an anti-bacterial agent," said Dr. Banting.

North American studies are required before the product can be marketed on this side of the ocean, and if the UWO study is a success, the mouthwash could be on the market within five years.

Will reduce bacterial counts

"The mouthwash is the only one that can effectively reduce bacterial counts. We're fighting gum disease, not bad breath, although increased oral cleanliness will result," said Dr. Banting.

The study, which began September 12, will continue for two years. "This will be the first large scale study on the general population in Canada," said Dr. Banting. "A second study will be



Dr. David Banting

conducted at a later date in the United States."

The researchers have approximately 780 volunteers, all of whom are at

least 18 years old and have at least 16 natural teeth. Participants are divided into three groups. The first group is a control, and uses a mouthwash without the anti-bacterial ingredient, the second and third use a mouthwash containing the active ingredient. Free dental examinations and teeth cleaning are part of the benefits to participants.

"The mouthwash has a tart taste and may leave a tingling sensation in the mouth," said Dr. Banting, "But the taste is not unlike other mouthwashes currently on the market."

"It is expected that once the study is complete, the results will be published in one of Canada's dental journals," said Dr. Banting.

Obituaries / Nécrologies

CHIASSON, R.: Dr. Chiasson, who was born in Reserve Mines, Nova Scotia in 1905, graduated from Dalhousie University in 1931. He was a Life Member of the Canadian Dental Association and practised in Cheticamp, Nova Scotia.

DINSMORE, G.W.H.: A graduate of Dalhousie University in 1930, Dr. Dinsmore was a Life Member of the Canadian Dental Association. At the time of his death, he was residing in St. George, New Brunswick.

EDMUNDS, J.R.: Dr. Edmunds, a resident of Brantford, Ontario at the time of his death, graduated from dentistry in 1926. He obtained his DDS at the University of Toronto. He began practising in Brantford in 1933, and continued until his retirement in 1973.

FORTIER, A.J. Diplômé de l'Université de Montréal en 1925, le Dr Fortier habitait à Montréal au moment de son décès.

HALL, H.A. (nee Thompson): Dr. Hall, who practised dentistry until 1940 in Bridgetown Nova Scotia, died recently in Halifax. She served as a city dentist for Halifax Public Schools until her retirement.

TARIO, G.V.: Dr. Tario, a Life Member of the Canadian Dental Association, was born in 1903. He graduated in 1927 from the University of Toronto and was a resident of Pembroke, Ontario, at the time of his death.

WALSH, J.L. (Sr.): Dr. Walsh graduated from the Royal College of Dental Surgeons in Toronto in 1923. He was a resident of Perth, Ontario, at the time of his death.

Briefly —

New Brunswick's fixed dental clinics, available mainly to provide the working poor with comprehensive dental care, have a reprieve until mid-December.

The clinics were to have closed on September 1, 1983, as an economy measure by the provincial government. Dr. Jack Thompson, Executive Director of the New Brunswick Dental Society, said the provincial Ministry of Health decided late in the summer, to keep the clinics open a while longer.

"This extension of the closing date will give the New Brunswick Dental Society and the province's practitioners time to present our views and protest against this proposed move," said Dr. Thompson. "The Society is developing a position paper on the clinics to be presented to the Minister of Health."

The clinics, located in Moncton, Fredericton and Saint John, have, according to Dr. Thompson, been used by the working poor of the province for some years.

Protests by practitioners to the provincial government against cutting New Brunswick's dental services program resulted in a reinstatement of that program.

"It is hoped that by presenting our views to the province on the fixed clinics in this position paper, we can get similar results for the clinic program," said Dr. Thompson.

♦♦♦♦♦♦♦♦

Dentists in Denmark have as big a problem attempting to motivate the public as dentists in Canada.

Of 1100 Danish adults surveyed in 1980, approximately one-quarter had never been to a dentist. Two-thirds of the population surveyed had seen a dentist once a year for the past five years, while about eight per cent had seen their dentist on an irregular basis.

The survey showed that younger people went more frequently than older people and more women visited their dentist than men. The main reasons given for not going to the dentist were apprehension about the wearing of dentures and the fear of dentists.

Compared to a similar Danish survey carried out five years ago, the percentage of regular attendance in all age groups had risen. However, those who did not see a dentist regularly were distributed among all age groups, making development of a motivation program in Denmark difficult.

♦♦♦♦♦♦♦♦

Dr. David Blair has been named President of the Montréal Dental Club for 1983-84.

Other officers for the new term recently installed include: Dr. Tom Oliver as President-Elect; Dr. Robert Miller as Vice-President; Dr. Peter Woolhouse is Immediate Past President; Dr. Peter Owen is Secretary; Dr. George Griffiths is the Club's Treasurer; and Dr. Jim Rowlands fills the post of Historian-Archivist.

Directors completing their second year are: Dr. David Hamilton, Dr. George Harasymowycz and Dr. Richard Emery.

Directors named to a two-year term, are: Dr. Rita Hurley, Dr. Ed Khazen and Dr. Danielle Venne.

♦♦♦♦♦♦♦♦

Dr. Douglas Yeo, President of the Canadian Section, International College of Dentists, recently announced that the Canadian Section will play host to meetings of the international body's Executive Council in Montréal in 1984. This is believed to be the first time that these meetings have been held outside of the United States.

Dr. William J. Spence of Toronto, a former President of CDA and who serves the Canadian Section of ICD as Registrar, was elected Vice-President of the international body late last

year. He will be serving in that capacity at the council meeting in Montréal.

Dr. Yeo pointed out in recent remarks that "collectively the members of Section Two believe the future of our profession lies in the committed young people entering our ranks. Consequently, we award a scholarship called 'The International College of Dentists Scholarship' to every dental school in Canada, to be given to third year students on academic performance. In addition, a sizeable donation is made each year to the Canadian Fund for Dental Education. We are now considering a proposal to establish a Grant-in-Aid program to look after areas of need in dentistry which are not covered by other funds, and which could benefit from a one-time financial contribution."

♦♦♦♦♦♦♦♦

The Canadian Fund for Dental Education now has available a Tribute Card for those practitioners who wish to mark a special occasion, such as a birthday, an anniversary or the opening of a new office by making a donation in honor of a friend or family member to CFDE.

According to a CFDE spokesman, more and more dentists are making contributions to the Fund on behalf of someone celebrating a special occasion.

Practitioners who wish to honor someone in this way may send the name and address of the person being honored and a contribution of \$10 or more to CFDE. A suitably-worded card will be forwarded from the Fund to the appropriate person.

All contributions to CFDE, including those made by a Tribute Card, are tax deductible.

Gifts should be forwarded to the Canadian Fund for Dental Education, Suite 202-203, 234 St. George St., Toronto, Ont., M5R 2P1.

♦♦♦♦♦♦♦♦

The Tooth Fairy is not a myth: he is alive and well and practising dentistry in Etobicoke, Ontario.

Dr. Sam Green, Etobicoke's direc-

tor of community dentistry, conceived the idea of the Tooth Fairy Society of Canada for children some years ago. Membership in the Society will cost the child a primary tooth. Dr. Green receives over 1500 baby teeth a year, from all over North America and even from Europe. In exchange for sending the Society a baby tooth, children get free information on tooth care.

If by night Dr. Green is the Tooth Fairy, by day he heads up Thumbsuckers Anonymous, for the chronic thumbsucker. When a child sends an outline of the offending thumb or forefinger to the Etobicoke Health Department, Civic Centre, Etobicoke, Ontario, M9C 2X2, he or she receives a brown bag containing a helpful pamphlet on thumbsucking and a pink Fuzzy Wuzzy creature to hang up in the room where the child is most likely to suck on a thumb.

"This fuzzy pink reminder is a gentle way to discourage thumb sucking, rather than the more harsh methods, which seldom work," said Dr. Green.

There is also a hot-line for thumbsuckers, where the confirmed offender can call for free advice.

Parents can also get information on children's teeth, infant dental care, teething and fluoride protection from the Etobicoke Health Department.

Dr. R.P. (Perc) Lowrey of North York, Ontario was married recently. Dr. Lowrey was president of the Canadian Dental Association in 1950-51, and is also a former president of the Ontario Dental Association.

Dr. Lowrey, now 87, and a widower for two years, married Dorothy Pepper, 86, a widow for 24 years. The simple ceremony took place in the home of Ms. Pepper's daughter, with the couple surrounded by children, grandchildren and great-grandchildren. The ceremony was performed under the watchful eyes of Dr. Lowrey's two sons, both United Church ministers.

The couple, now living in North York, had known each other for

many years, but a chance meeting in local supermarket touched off a courtship that ended happily for both.



Dr. R.P. (Perc) Lowrey photographed during his tenure as CDA President, 1950-51.

Saskatchewan dental practitioners are entering the third year of provision of services to the 14-16 year-olds in the province.

Services to this age group come under the auspices of the provincially funded adolescent dental plan.

According to Dr. George Peacock, Secretary-Treasurer of the College of Dental Surgeons of Saskatchewan, approximately 95 per cent of the province's practitioners participate in the plan. "It appears to be fairly successful to the benefit of the public, the government and the profession," he said.

"Of that age group the program covers 72.8 per cent," said Dr. Peacock. "Saskatchewan practitioners expect to treat 29,000 adolescents under the program this year."

Dr. Philip J. Kendall, a long-time professor in the Faculty of Dentistry, University of Alberta, has also achieved high rank in other areas.

He attended the 100th Convocation of the Sovereign Great Priory of Canada, Knights Templar, held earlier this year in Regina. Dr. Kendall presided over that Masonic gathering as Supreme Grand Master.

Over the years, Dr. Kendall has held many positions of honor in the Masonic Order.

An Alberta dentist spent the month of September working in a Philippine refugee camp, run by the United Nations.

Dr. Dalton Deedrick, of Lacombe, Alberta, spent September working in the camp at Marong, about 120 km north of Manila, as part of a project of Rotary Clubs International. He replaced a Norwegian dentist who had spent the month of August in the camp.

Rotary International supplies one dental unit, including a dentist, to the camp of 15,000 people. The refugees in the camp, mainly Laotians, Cambodians and Vietnamese, arrive in the camp at a rate of 3,000 a month, and can stay as long as one year. Besides having their dental and medical needs looked after, they also receive some vocational training.

Much of Dr. Deedrick's work was emergency dentistry, including many extractions, and some basic restorative dentistry. "Many of the people in the camp have been on the run for up to three years, with no medical attention," said Dr. Deedrick.

The dental equipment was adequate for the purpose, but camp officials told Dr. Deedrick to bring along basic medicines, such as analgesics and antibiotics. Any medicine not used was left for the next dentist.

The World Health Assembly, meeting in Geneva earlier this year, voiced strong support for implementation of an international oral health program.

A special information session on the Programme for Oral Health and Future Strategies was arranged, where the Executive Director of the FDI spoke on the International Collaborative Oral Development Programme.

Following discussion on this program, the World Health Assembly gave overwhelming support to the resolution requesting the World Health Organization to set up this program from available resources.

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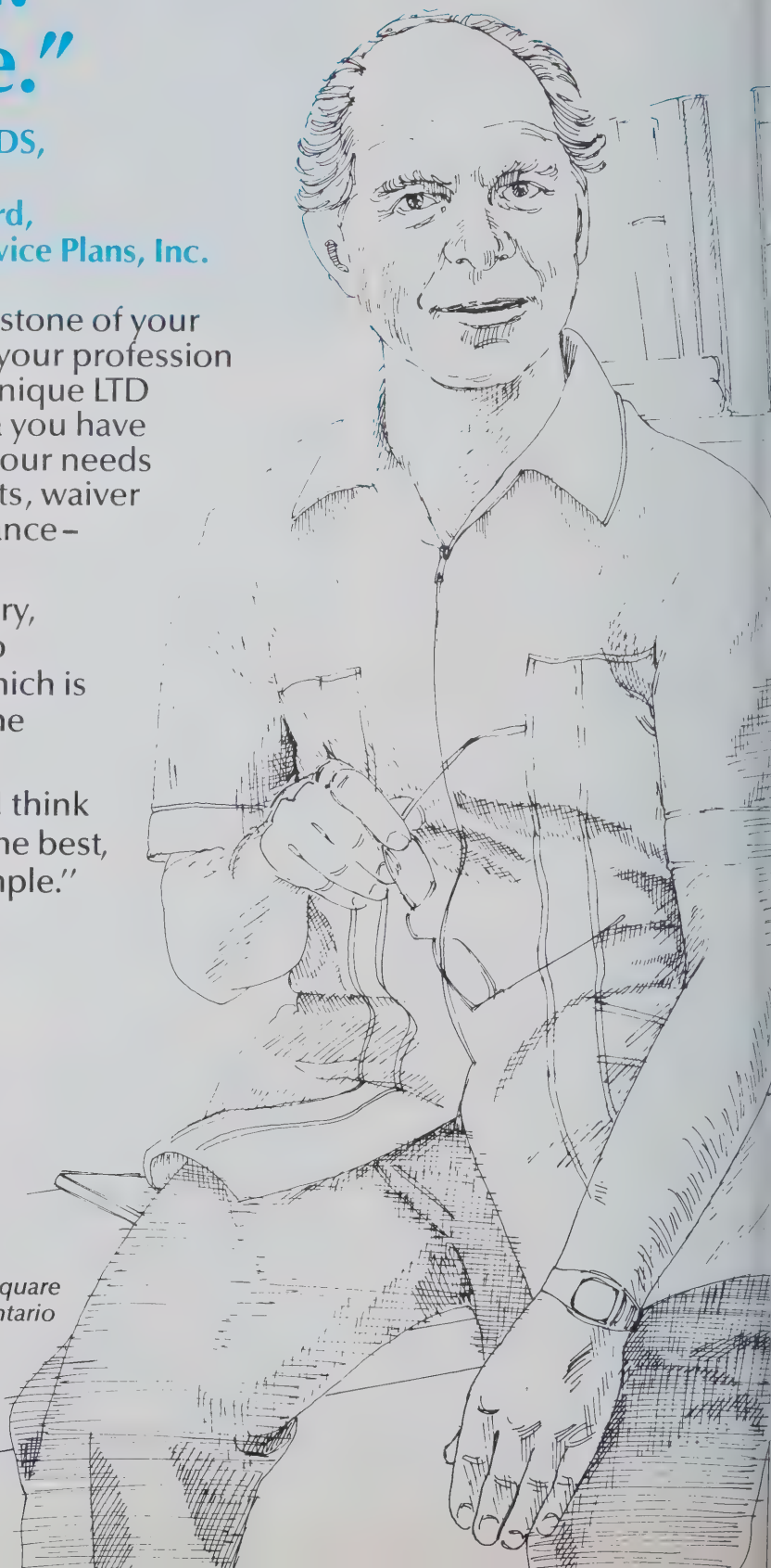
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ANOREXIA NERVOSA and BULIMIA

One copy of the following articles is available at no charge from the library. This bibliography was generated with the help of MEDLARS, a computerized information retrieval system for the Health Sciences field, which has been operational at the library since February 1982, and is at the disposal of all members.

1. Andrews, F.F. *Dental erosion due to anorexia nervosa with bulimia*. British Dental Journal, v. 152, no. 3, February 2, 1982, pp. 89-90.

2. Brady W.F. *The anorexia nervosa syndrome*. Oral Surgery, v. 50, no. 6, December 1980, pp. 509-516.

Abstract: This article reviews the medical and dental literature on the anorexia nervosa syndrome and presents the oral and systemic manifestations of this serious disease process. A case is reported which demonstrates the generalized destruction of tooth structure, primarily as a result of the direct effect of gastric acid on this patient's dentition during a five-year period of self-induced vomiting. The systemic, psychological, and social aspects of this syndrome are classically illustrated in this case history.

3. Carni, J.D. *The teeth may tell: dealing with eating disorders in the dentist's office*. Journal of the Massachusetts Dental Society, v. 30, no. 2, 1981, pp. 80-86.
4. Hasler, J.F. *Parotid enlargement: a presenting sign in anorexia nervosa*. Oral Surgery, v. 53, no. 6, June 1982, pp. 567-573.

Abstract: The purpose of this article is to present the pertinent medical and dental features of anorexia nervosa and to add an

additional oral-facial finding, parotid gland enlargement, which has been described infrequently in a few scattered reports. Pertinent differential diagnosis for the systemic and oral-facial findings are discussed, including a review of the factors producing salivary gland enlargement. Early recognition of the psychiatric and pathophysiologic components of this disorder are essential to diagnosis and successful treatment. The dentist should consider the diagnosis of anorexia nervosa in the presence of such abnormal dental findings as perimyolysis and chronic salivary gland enlargement, especially in underweight and amenorrheic young women.

5. Hellstrom, I. *Oral complications in anorexia nervosa*. Scandinavian Journal of Dental Research, v. 85, no. 1, January 1977, pp. 71-86.

Abstract: Anorexia nervosa (AN), a psychosomatic disease mainly affecting young women, is characterized by conscious starvation, periods of excessive carbohydrate intake and often deliberate vomiting. Medical history, dental examination, and saliva tests of 39 patients aged 14 to 42 years, having suffered from AN for periods of one to 20 years, showed dental caries, because of excessive carbohydrate consumption, in all subjects, often in rampant form. In patients with a history of intense vomiting (27 cases) severe lingual-

L'ANOREXIE MENTALE et BOULIMIE

On peut se procurer sans frais une copie des articles ci-dessous. Cette bibliographie a été dressée grâce à MEDLARS, un système automatisé de recherche documentaire sur les sciences, de la santé que la bibliothèque exploite depuis le mois de février 1982, et qu'elle met au service de tous les membres.

occlusal erosion (perimyolysis) was nearly always present. Buccal erosion, mainly because of high consumption of acid fruits and drinks to relieve thirst caused by dehydration, was more frequent in vomiting than in non-vomiting patients. Subnormal values of saliva properties, owing to dehydration or xerostomia-induced medication, were present in the majority of cases; the lowest values occurred in those vomiting. A medical, psychiatric, and dental survey of AN is presented.

6. House, R.C. and others. *Perimyolysis: unveiling the surreptitious vomiter*. Oral Surgery, v. 51, no. 2, February 1981, pp. 152-155.

Abstract: Perimyolysis is a dental condition linked to chronic regurgitation. When perimyolysis is found in the patient who denies vomiting, one must suspect anorexia nervosa, a disorder with a high rate of morbidity and mortality. The dental literature has not provided guidelines for confirming the suspicion of surreptitious vomiting. The purpose of this case report is to describe our approach, using simple blood and urine studies which establishes whether a patient who has perimyolysis but denies vomiting is a surreptitious vomiter.

7. Hurst, P.S., Lacey, L.H. and Crisp, A.H. *Teeth, vomiting and diet: a study of the dental characteristics of seventeen anorexia*

nervosa patients. Postgraduate Medical Journal, v. 53, no. 620, June 1977, pp. 298-305.

Abstract: Seventeen anorexia nervosa patients were examined dentally and their dietary histories and eating habits studied. Analysis of the data confirmed earlier observations dental deterioration associated with anorexia nervosa. The deterioration included a pattern of enamel dissolution in cases of vomiting, regurgitation, and/or the consumption of large amounts of citrus fruits; and an altered caries response due to abnormal carbohydrate consumption. Despite the patient's probably insistent denial of 'anorectic' eating habits, the general practitioner should consider the existence of anorexia nervosa in the presence of such abnormal features, especially in young women. The relationship of these findings to larger populations with similar eating habits is discussed.

8. Reinhardt, R.A. and Reinhardt,

R.C. *Dental implications of anorexia nervosa: report of case*. Journal of the Nebraska Dental Association, v. 54, no. 1, Autumn 1977, pp. 7-9 & 20.

9. Shefrin, A.P. *The dental hygienist and the detection of anorexia nervosa*. Dental Hygiene, v. 52, no. 9, September 1978, pp. 427-428.

10. Smith, B.G. and Knight, J.K. *Dental erosion due to anorexia nervosa with bulimia (letter)*. British Dental Journal, v. 152, no. 6, March 16, 1982, p. 187.

11. Stege, P., Visco-Dangler, L. and Rye, L. *Anorexia nervosa: review including oral and dental manifestations*. Journal of the American Dental Association, v. 104, no. 5, May 1982, pp. 648-652.

12. Winstead, D.K. and Willard, S.G. *Bulimia: diagnostic clues*. Southern Medical Journal, v. 76, no. 3, March 1983, pp. 313-315.

Abstract: Bulimia is an eating disorder characterized by the ingestion of large amounts of food, usually followed by self-induced vomiting or laxative abuse. Although sometimes a symptom of obesity or anorexia nervosa, bulimia is often associated with borderline weight and nutritional status and thus may be difficult to detect. Since secrecy and shame accompany this syndrome, patients are reluctant to seek treatment. We present ten diagnostic clues for identifying bulimic patients: (1) preoccupation with weight, (2) gastrointestinal complaints, (3) dental and oropharyngeal changes, (4) salivary gland enlargement, (5) edema and bloating, (6) amenorrhea, (7) dermatologic complaints, (8) substance abuse, (9) laboratory changes, and (10) serious consequences. A case study illustrates the major features of the disorder and its treatment.

NEW LIBRARY ACQUISITIONS

The following current acquisitions are available on loan from the Resource Centre/Library.

TITRES EN BIBLIOTHÈQUE

Les titres indiqués ci-dessous sont maintenant disponibles à la bibliothèque/centre de documentation de l'ADC.

1. Arthur Young & Company. *Investigation of the Application of Computer Technology to Private Dental Practice*. Hyattsville, Md.: U.S. Department of Health and Human Services, 1977, 147p. 1 copy.

2. Banks, Peter. *Killey's Fractures of the Mandible*. Bristol: Wright PSG, 1983. 117p. 1 copy.

3. Congress of the International Association of Dentistry for the Handicapped. *Proceedings, Toronto,*

July 20-25, 1982. 101p. 5 copies.

4. Domer, L.R., Snyder, T.L. and Heid, D.W. *Dental Practice Management: Concepts and Application*. Toronto: Mosby, 1980. 381p. 1 copy.

5. Dunlap, J.E. *Stress, Change and Related Pains: for Dentists and Those Nearby*. Tulsa, Oklahoma: PennWell, 1981. 222p. 1 copy.

6. Osborn, J.W. and Ten Cate, A.R.

Advanced Dental Histology. 4th ed. Bristol: Wright PSG, 1983. 209p. 1 copy.

7. Task Force on Smoking and Health. *Smoking and Health in Ontario*. Toronto: Ontario Council of Health, 1979. 129p. 2 copies.

8. Task Force to the Conference of Deputy Ministers of Health. *Periodic Health Examination*. Hull: Minister of Supply and Services Canada, 1980. 194p. 1 copy.

Differential Diagnosis of Oral Lesions (2nd Ed.)

Norman K. Wood and
Paul W. Goaz

C.V. Mosby Co.
St. Louis, Missouri
\$37.50 U.S.
663 pages

The second edition has kept to the same format as the first edition but has extensively revised the red lesion area and expanded it so that there are now three chapters. There are also two new chapters, one on Mixed Radiolucent/Radiopaque Lesions associated with teeth and another on Diseases of the Maxillary Sinus. The illustrations and references have been greatly expanded making this edition far superior to its predecessor.

The book is divided into three parts and the first part was written especially for students. The first part consists of preparatory chapters, which introduce one to the initial steps in taking a history and examination. The diagnostic sequence is outlined, so that a final diagnosis can be established. There are some very good line drawings to help correlate the gross structure and micro structure with the clinical features.

No mention of Hepatitis B was made which I found strange as the text went into the tests for blood urea nitrogen and serologic tests for syphilis.

Parts II and III make up the differential diagnosis area of the text and deals with the specific disease entities. The lesions are classified on the basis of their clinical color and radiologic appearance. Only lesions that have a high frequency of occurrence are discussed in detail and the rare lesions are merely listed. At the beginning of each chapter there is a list of all the possible lesions that could fall

into the area to be discussed in that chapter. At the end of the chapter are tables that help to summarize the text and the pertinent points can be seen at a glance which is appealing to students.

Part II of the book classifies lesions by their color. Some conditions are mentioned more than once as they have a variety of colors with which they may display. Namely some red lesions may appear as white lesions if they have a pseudo membranous covering, e.g. candida. In this section of the book no attempt is made to discuss radiologic appearances. This is kept for the third section which makes up over half of the text. This section is divided into three areas depending on whether

the radiologic appearance is completely radiolucent, mixed radiolucent-radiopaque and totally radiopaque. A factor complicating this simplified scheme is that frequently a lesion will occur with two or even three different images, usually representing different stages of maturation. Therefore some entities have been included in more than one chapter.

This book should appeal to both students and clinicians who are in general, more comfortable with visible changes such as color or images on radiographs, than with the microscopic appearances.

This book was reviewed by Ann Jarvis, DDS, Department of Oral Medicine, Faculty of Dentistry, The University of Western Ontario, London, Ontario.

Advances in Occlusion

Harry C. Lundeen and
Charles H. Gibbs, Eds.

John Wright PSG Inc.
Littleton, Massachusetts
\$45.43 (Can.)
232 pages

The objectives of this book appear to be two-fold. The first is to apprise dental practitioners and specialists of the complications that may arise from complex occlusal therapy and the second is to present information on research and therapy related to advances in occlusion by the editors and their contributors. These objectives are stated by A.F. Gardner, the editor of the Postgraduate Dental Handbook series within which this book is volume 14. The first objective

eluded my attention, but the second objective did not. This worthy goal was well and truly met. The editors, Drs. Lundeen and Gibbs, are dedicated and well respected contributors to research in this area and if the textbook contained their chapter alone, the book would be worth purchasing. They have delineated their research to the limit of time permitted by the printers (probably summer of 1980). This research is a must for all serious students of occlusion.

If Lundeen and Gibbs approached a large number of contributors for this book (and it would be interesting to know how many actually participated), enough certainly for this small volume (a total of 26) and while the editors attempted to delineate three major areas (a) Applied Clinical Research in form and function, (2)

TMJ dysfunction — Dx and Tx, and (3) Disciplinary Considerations in Occlusion, there was considerable melding or overlap.

The plethora of contributors, produced a wide variation of quality of the presentations. The majority, however, are very well written with good basic data. One or two chapters are excellent, these include chapter 3 by Lee on Anterior Guidance, Patient Response by Gibbs and Fujimoto and Wear by Moon and Draughn. The latter might have included some SEMS on wear which would have strengthened the chapter. Apart from the odd reference to J. Dent. Res. the authors did not expose the reader to the most advanced work in their field. One, in fact, tended to retreat into Grade 11 physics when he described the "fuzzy area around the image" as the penumbra. This should have been tightened by the editors in

order to reduce the number of pages and hence cost.

This book sells for \$45.43 in Canada which is expensive for offset printing with a light weight paper thin enough to permit certain illustrations to show through. Poor photographic reproduction is bad enough (see figs. 15/16A, 15/16E, 15/16G) but it is worse when line drawings appear through. What can one make of fig. 15-38A? It might as well be left out for all it contributes. I can't blame the authors, clinical photographs are difficult enough to take and with so many different photographs it is impossible to produce illustrations of equal density. A different reproduction system by the publishers could have improved them. However, I must commend the quality of photographs in chapter 11. They are large enough and generally consistently exposed to reproduce clearly. It is a pity that Lundeen

and Gibbs didn't enlarge their figs 1-1. This is far too small for reader comfort.

One more and final crack at the publishers — many of the pages are of poor quality, covered with myriads of black dots. I do not have a second copy to compare, but I suspect all copies are like this.

Despite the publisher's shortcomings and the relatively high cost (even when comparing other books published by John Wright) this book should be of great value to all dentists, but in particular graduate and postgraduate students in the specialties of restorative dentistry, orthodontics, periodontics and prosthodontics.

This book was reviewed by Trevor J. Harrop, LDS, DDS, MS, PhD, Professor, Department of Restorative Dentistry, University of British Columbia, Vancouver, B.C.

Management of Infections of the Oral and Maxillofacial Regions

Richard D. Topazian and
Morton M. Goldberg

*W.B. Saunders Co. of Canada
Toronto, Ontario
\$49.35
465 pages*

The authors of this highly comprehensive text tasked themselves to "collect and collate information on many contemporary aspects of infections." They have produced a work which succeeds as an in-depth study of all areas of this

topic, progressing from physiological and anatomical aspects through microbiological and pharmacologic considerations. The book also considers laboratory techniques, prevention and control of infections in surgical patients, and the interrelationship with systemic disease. A further subdivision anatomically deals with infections in the various facial components.

Being principally authored and compiled by oral and maxillofacial surgeons, the subject is considered from an approach oriented towards dentistry and oral surgery and has much clinical relevance. Antibiotic therapy is well researched and presented with excellent evaluation of the pros and cons of various types of antibiotics and consideration of prophylactic antibiotics. In dealing with specific

infection entities, case reports are used to illustrate various aspects and are accompanied by pertinent clinical photographs. The use of many excellent diagrams throughout provides good support to the narrative.

It is felt that this text would be of greatest value to an oral and maxillofacial surgeon and of less relevance for the general dental practitioner due to its in-depth study of all facets of facial infections. In summary, an excellent book for a hospital library, a teaching facility or a practitioner of oral and maxillofacial surgery; this text is, however, overly detailed for the requirements of a general dental practitioner.

This book was reviewed by Harry M. Amos, DDS, MSc (Oral Surgery), Ottawa, Ontario.

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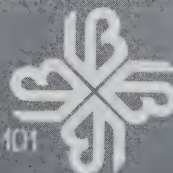
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Baigneurs, gare à la mylolyse!

Aux États-Unis, on vient de découvrir que les nageurs de compétition risquent de souffrir de mylolyse, une affection qui détruit progressivement l'émail des dents.

L'an dernier, un dentiste de la Virginie a soigné deux patients dont l'émail des dents s'était détérioré à cause d'une exposition à l'acide. Après plus ample examen, il a appris qu'ils étaient des nageurs de compétition et qu'ils s'entraînaient dans la même piscine. Or, la teneur de pH de celle-ci était de 2,7 seulement.

Bien que cet incident soit un cas isolé, la rédaction du Journal a effectué un sondage auprès des écoles dentaires canadiennes ainsi qu'auprès des divisions provinciales s'occupant de la dentisterie et de l'environnement pour savoir qu'il pouvait se produire au Canada.

Selon l'un des meilleurs spécialistes en émail dentaire, le Dr Gordon Nikiforuk, de l'Université de Toronto, une teneur aussi basse en pH dans l'eau d'une piscine peut certes entraîner la mylolyse.

"Pour provoquer la détérioration des dents, la teneur en pH doit assurément être basse et l'eau acidifiée," a-t-il expliqué. "L'émail se corrode sous l'effet de l'acide quand, en général, la teneur en pH est moins de 5. On sait que le jus de citron et les bonbons sont les deux causes les plus communes de la mylolyse."

Bien que les écoles dentaires canadiennes ne fassent actuellement aucune étude particulière sur la mylolyse, de nombreux chercheurs s'intéressent aux deux cas américains.

Le Dr John Ericson, épidémiologue dentaire canadien travaillant présentement au Centres du contrôle

des maladies à Atlanta, en Georgie, a confirmé qu'aucune recherche n'est menée en ce sens au Canada.

"Nul au Canada ne s'est penché sur le problème de la destruction des dents chez les personnes qui se baignent dans des piscines," a-t-il noté.



Dépistage difficile

Un sondage auprès des divisions dentaires provinciales n'a révélé aucun cas. Toutefois, la cause de la mylolyse est parfois malaisée à déterminer, a fait observer le Dr Nikiforuk. Il est difficile de voir comment se produit toute érosion dentaire. Il faut une exposition prolongée à l'acide avant que les dents ne commencent à se corroder.

Peter Block, consultant principal du génie en santé publique de l'Ontario, a déclaré qu'une teneur de 2,7 en pH dans une piscine entraîne nécessairement l'érosion, et non seulement l'érosion des dents.

En plus d'endommager les dents des baigneurs, a-t-il ajouté, une telle eau cause un tort sérieux aux yeux.

En outre, tuyaux et enduits de jointoiement exposés à l'eau acidifiée sont érodés.

"Se baigner dans une eau aussi acide équivaut à plonger ses dents dans une solution d'acide chlorhydrique," a commenté M. Block. "En Ontario, la teneur en pH d'une piscine doit être maintenue entre 7,2 et 7,8. Étant donné qu'elle était si basse dans la piscine utilisée par les deux nageurs américains, ceux-ci ont dû porter des lunettes protectrices, sans quoi ils auraient eu les yeux irrités. Ce sont leurs dents qui ont plutôt été endommagées."

Dans un sondage effectué auprès des ministères provinciaux de l'environnement, la rédaction a appris que la plupart des provinces ont un règlement touchant le pH que doivent contenir les piscines. Au Canada en général, la teneur en pH doit se situer entre 7,2 et 7,8 et même atteindre 8 dans certaines provinces. Le taux le plus bas enregistré a été 7.

Chlore et agent tampon

Pour maintenir l'acidité des piscines à un taux convenable, on mêle du chlore à un agent tampon, habituellement du carbonate de calcium. Quand la teneur en pH baisse, on ajoute une plus grande quantité de l'agent tampon pour la faire augmenter. Dans toutes les provinces du Canada, l'eau des piscines est testée au moins une fois par jour et, dans plusieurs grandes piscines, telles celles du Centre aquatique de l'Université de la Colombie-Britannique où s'entraîne l'équipe de natation de l'université, la teneur en pH est ajustée automatiquement.

Dans certaines provinces, l'eau contient tellement de minéraux naturels qu'elle ne cause aucun problème

Suite à la page suivante

Des chercheurs canadiens testent un rince-bouche qui réduira la plaque dentaire

Une équipe de chercheurs de l'Université *Western Ontario* effectue des études sur un rince-bouche qui réduira considérablement la plaque dentaire, l'une des principales causes des maladies gingivales.

Dirigés par le Dr David Banting, doyen adjoint de la Faculté dentaire, les chercheurs ont entrepris une étude de deux ans grâce à une subvention d'un demi million de dollars obtenue d'une firme américaine.

"Les maladies parodontaires, a déclaré le Dr Banting, continuent à être la principale cause de la perte des dents chez les adultes. Et ce sont les bactéries de la plaque se formant sur les dents qui sont en grande partie responsables de ce phénomène. Nous espérons que le rince-bouche étudiée réduira considérablement la formation de la plaque sur les dents."

L'élément actif du rince-bouche a déjà été éprouvé avec succès en Europe. Il s'agit d'un ingrédient qu'on utilise avec succès dans d'autres produits médicaux.

Le rince-bouche en question agit en dissolvant chimiquement la plaque qui se forme par l'accumulation de bactéries. "Il contient un agent bactéricide," a précisé le Dr Banting.

Des études nord-américaines doivent être faites avant que le produit ne soit lancé sur le marché d'ici, et si l'étude de l'Université *Western Ontario* est concluante, on commencera à vendre le rince-bouche dans moins de cinq ans.

Rince-bouche antibactérien

"Ce rince-bouche sera le seul réduire considérablement le nombre des bactéries, a fait observer le Dr Banting. Nous luttons contre les maladies gingivales et non contre la mauvaise haleine. Cependant, il va de soi que les personnes qui l'utiliseront auront une bouche plus propre."

L'étude a été entreprise le 12 septembre dernier et se poursuivra pendant deux ans. "Ce sera la première étude d'importance auprès de la po-

pulation générale du Canada, a noté le Dr Banting. Une deuxième étude sera effectuée plus tard aux États-Unis."

Les chercheurs ont fait appel à environ 780 volontaires qui sont tous âgés d'au moins 18 ans et possèdent au moins 16 dents naturelles. Ils sont divisés en trois groupes, le premier étant un groupe témoin et utilisant un rince-bouche sans élément bactéricide. Les deux autres groupes utiliseront un rince-bouche contenant l'élément actif. Tous auront droit à des examens et des nettoyages dentaires gratuits.

"Le rince-bouche a un goût âpre et laisse un picotement dans la bouche, a remarqué le Dr Banting. Toutefois, son goût se compare à celui des autres rince-bouche sur le marché."

"On prévoit que, lorsque l'étude sera terminée, les résultats en seront publiés dans une revue dentaire du Canada," a noté le Dr Banting en guise de conclusion.

Baigneurs (suite)

du genre. C'est le cas dans l'Île-du-Prince-Édouard.

L'agent du service de l'Hygiène publique de cette province. Les Parsons, disait justement: "Il est très rare que l'eau d'ici soit corrosive, puisqu'elle est plutôt dure."

Aucun cas de mylolyse n'a été signalé à aucune division dentaire provinciale. Cependant, le Dr Clifford McCormick, chef de la division dentaire du Manitoba, est d'avis que d'autres problèmes non nécessairement dentaires ont pu se manifester chez les nageurs de compétition utilisant des piscines trop acidifiées.

"L'acide chlorhydrique est très puissant," a-t-il noté, "et dans une piscine, il peut irriter les yeux. En outre, le chlore n'a guère bon goût."

Plusieurs inspecteurs de la santé du milieu sont du même avis. C'est pourquoi les piscines pour nageurs de compétition sont généralement inspectées deux ou trois fois par jour par les responsables qui en ajustent la teneur en pH.

D'après David Brailsford, secrétaire général de la Fédération internationale des associations de professeurs de natation, l'eau des piscines publiques au Canada ne causera aucun dommage aux dents tant qu'on en régularisera convenablement le taux d'acidité.

"Durant toute ma carrière de professeur de natation," a-t-il fait remarquer, "j'ai été en contact avec des nageurs de marathon, de fond et de

compétition. Or, je n'en ai jamais connu un qui ait eu des problèmes dentaires à cause de l'eau des piscines."

Facteur "important"

Commentant plus amplement les deux cas de mylolyse aux États-Unis, le Dr Nikiforuk a déclaré qu'il est important pour l'environnement que la profession sache que ce problème est possible.

"Les dents resteront intactes tant que les piscines seront bien entretenues," a-t-il dit. "Le public a de plus en plus conscience de la fragilité de l'environnement et les dentistes doivent être renseignés sur les dangers auxquels peuvent être exposés leurs patients."

"A mon avis, la meilleure source d'assurance invalidité prolongée est le CDSPI. Tout simplement."

Roy L. Rasmussen, DMD
Calgary, Alberta
Président du conseil d'administration
du Canadian Dental Service Plans Inc.

"L'assurance invalidité prolongée est un élément essentiel de vos assurances. C'est pourquoi votre profession a, par l'entremise du CDSPI, mis au point une assurance invalidité prolongée supérieure aux critères minimums fixés par vous pour répondre à vos besoins – primes peu élevées, invalidité partielle, exonération de prime, indexation sur le coût de la vie – et elle est renouvelable jusqu'à 70 ans.

"Nous comprenons les dentistes, nous comprenons la nécessité de minimisation des frais généraux, et c'est pourquoi nos primes sont parmi les plus basses de toute l'Industrie.

"Si vous voulez d'autres raisons qui me font dire que l'assurance invalidité du CDSPI est la meilleure, téléphonez, sans frais, ou écrivez. Tout simplement."

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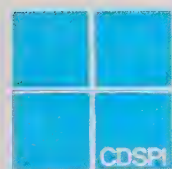
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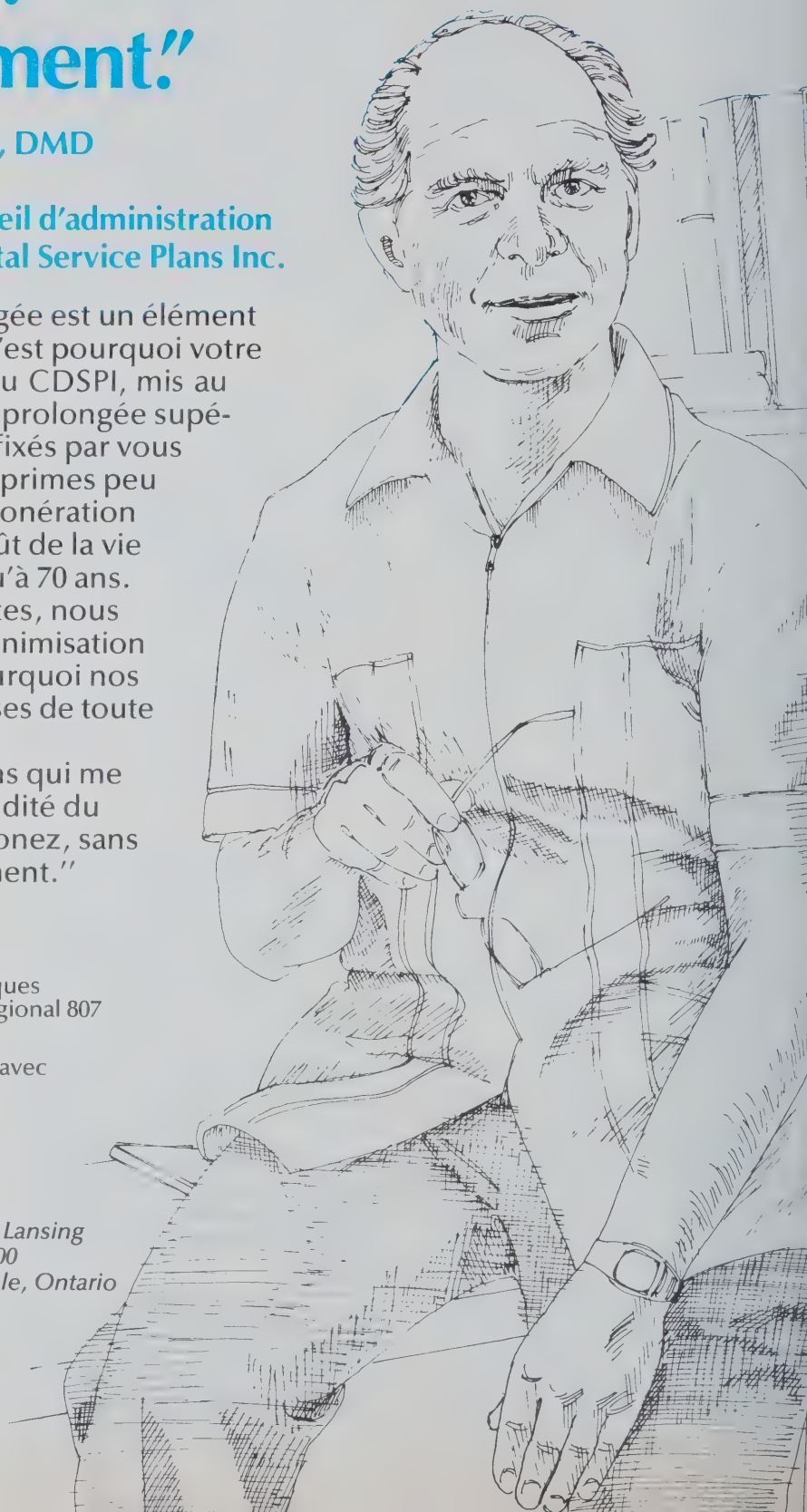
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Le Dr Thompson invité à la collation des grades de l'École dentaire des FAC à Borden

Brigadier général à la retraite, ancien directeur général du Service dentaire des Forces armées canadienne (FAC) et président sortant de l'Association dentaire canadienne, le Dr William R. Thompson a été invité à prendre la parole lors d'un dîner servi à l'occasion de la collation des grades de l'École dentaire des FAC, à la base de Borden, en Ontario.

Comme il était encore président de l'ADC à cette occasion, le Dr Thompson a fait état des problèmes en dentisterie actuelle et des mesures prises par l'ADC pour les résoudre.

Ainsi il a parlé du programme d'agrément de l'ADC, des ressources en personnel dentaire, des dispositions touchant les dentistes salariés, des régimes d'assurance des CDSPI pour les étudiants et des rapports que l'ADC entretient avec les ministères et les agences du gouvernement, exhortant les étudiants à donner leur appui aux organismes dentaires nationaux et provinciaux.

Selon le Dr Thompson, la formation que donne le Service dentaire des FAC "est de loin la plus complète qui soit au monde." Il a loué le colonel J.M.A. Donely pour le travail qu'il a accompli au profit de l'école, le remerciant, lui et le brigadier général James N. Wright, d'avoir participé au Conseil d'administration et au Conseil de l'Éducation de l'ADC au cours de l'année qui vient de s'écouler.

Parmi les invités d'honneur à la collation des grades, on remarquait le colonel à la retraite G.R. Covey, colonel commandant du Service dentaire des FAC.

Collation des grades

La collation des grades a eu lieu le 29 juillet dernier. Y ont participé le brigadier général James N. Wright, en tant qu'agent de revue, et le brigadier général R.D. Leach, commandant de la base de Borden.



1. Le brigadier général Wright passe en revue les diplômés du Programme de formation des officiers dentistes des FAC.

Cette année, 22 étudiants ont complété la dernière phase du programme estival de formation dentaire pour les membres des FAC.

Durant la cérémonie, le brigadier général Wright a présenté des récompenses aux deuxième lieutenants E. McMurdo (prix honorifique) et R.W. Hart (prix des exercices locaux).

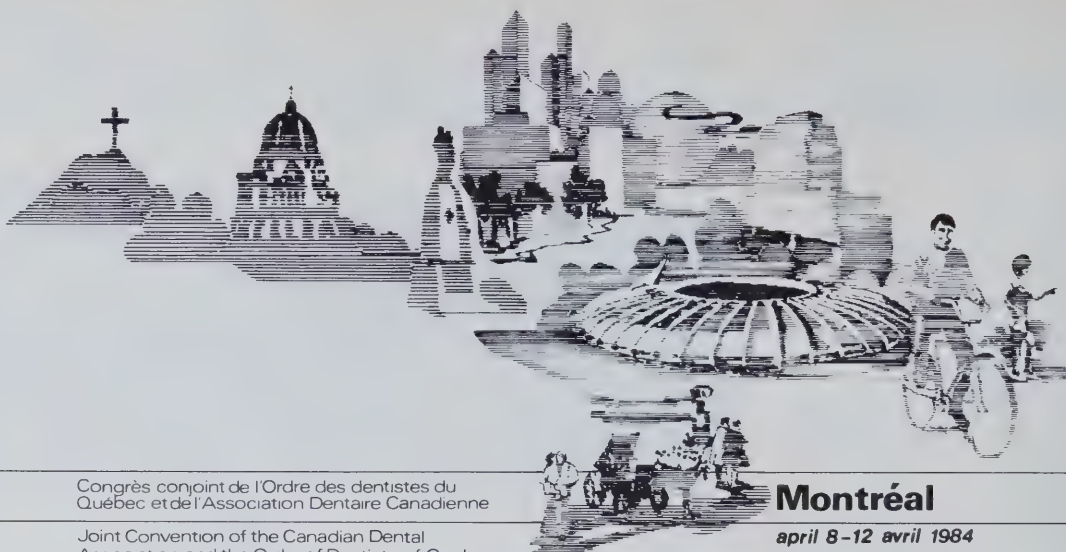
Formation des officiers dentistes

Le Programme de formation des officiers dentistes des FAC est un programme de subvention: les FAC défraient pratiquement toutes les dépenses de l'étudiant dentaire pour une période maximum de quatre ans, pendant qu'il étudie dans une école dentaire du Canada. De plus, l'étudiant touche une allocation mensuelle.

Chaque année, les étudiants dentistes canadiens qui font partie du programme en question doivent participer au programme estival de formation qui vise à préparer leur carrière comme officiers dentistes dans les FAC.

Après leur troisième année d'études en dentisterie, les étudiants entreprennent la phase III du programme estival. Celle-ci comprend deux parties. La première consiste pour les étudiants à travailler pendant quelques semaines dans les principales cliniques du Canada afin de s'initier au régime des cliniques dentaires militaires et à la vie dans les milieux des FAC. La deuxième partie a lieu à l'École dentaire de Borden où les étudiants doivent mettre à l'épreuve leurs connaissances militaires et l'enseignement qu'ils ont reçu dans le cadre du Programme de dentisterie restauratrice des FAC. En outre, ils doivent procéder à des exercices pratiques en dehors des cliniques.

La partie didactique de ce programme comprend les principes fondamentaux de la gestion d'une clinique et d'un cabinet, y compris la documentation, la préparation des graphiques et les procédures pour l'approvisionnement matériel.



Congrès conjoint de l'Ordre des dentistes du Québec et de l'Association Dentaire Canadienne

Joint Convention of the Canadian Dental Association and the Order of Dentists of Quebec

Montréal

april 8-12 avril 1984

Le Congrès 1984

Montréal sera le site du Congrès mixte de l'Ordre des dentistes du Québec et de l'Association dentaire canadienne

Ville cosmopolite et fascinante, Montréal verra pour la première fois les deux organismes tenir conjointement leur congrès annuel.

L'exposition commerciale, les conférences scientifiques et toutes les autres rencontres auront lieu dans le tout nouveau et ultra-moderne Palais du Congrès qui est situé au coeur du quartier des affaires et à proximité des principaux hôtels. En outre, le Palais du Congrès est desservi par le métro.

Selon le Dr Michel Jahjah, président du comité organisateur du congrès (8 au 12 avril 1984), le programme scientifique est déjà prêt et on procède maintenant aux derniers préparatifs.

Avant la tenue du congrès, on donnera des cours en éducation permanente. Les premiers arrivés seront les premiers servis.

Assemblée du Conseil d'administration de l'ADC

L'Assemblée intérimaire du Conseil d'administration de l'ADC qui se tient habituellement en mars, sera

repoussée aux 8 et 9 avril pour coïncider avec le congrès de Montréal.

Toutes les dispositions touchant le congrès relèvent de l'ODQ. L'hôte sera son président, le Dr Marc Boucher.

On a réservé des chambres dans quelques-uns des meilleurs hôtels de Montréal, près du Palais du Congrès.

Ville d'hier et de demain

Bien que Montréal soit l'une des villes les plus anciennes du Canada, comptant quelque 350 ans d'histoire, elle est tournée vers l'avenir. On y trouve des immeubles commerciaux et résidentiels tout à fait impressionnants, des centres d'achats absolument spectaculaires tant sous terre qu'au-dessus, des boutiques de haute couture, des théâtres, des salles de concert, des cabarets et des boîtes de nuit qui font de la vie nocturne montréalaise l'une des plus animées de l'Amérique du Nord.

Deuxième ville francophone du monde, Montréal a conservé le patache et la saveur de l'Ancien Monde.

Tout visiteur s'y sent plongé dans un milieu unique et mémorable.

À Terre des Hommes, site d'Expo '67, on retrouve des souvenirs d'un des moments les plus glorieux du Canada entier. Plusieurs constructions spectaculaires y subsistent et, durant l'été, le parc d'amusement continue à attirer les jeunes et les moins jeunes.

Rappelant les Olympiades '76, le Village olympique situé dans l'est de la ville s'enorgueillit de son célèbre stade. Les Expos et le Club de football Concorde y ont élu domicile.

La réputation internationale des restaurants montréalais n'est plus à faire et repose sur une tradition déjà ancienne. Salles à diner, restaurants et cafés offrent des mets de tous les pays et de toutes les cultures. De nombreuses expériences gastronomiques inoubliables attendent les palais aventureux.

Enfin, Montréal offre aux amateurs d'art un grand nombre de galeries et de musées.

L'A.D.C. représente la profession auprès du Parlement en présentant un mémoire sur les pensions

À titre de service aux Membres de l'ADC et à tous les membres de la profession dentaire, un comité conjoint de plusieurs associations professionnelles, créé il y a deux ans par l'ADC, et présidé par le Dr Robert Hicks, qui est actuellement Président de l'ADC, a présenté son mémoire sur la réforme des pensions au Comité parlementaire sur la réforme des pensions.

Cette présentation risque d'avoir des conséquences directes sur le programme de REEP de l'ADC, qui est réservé aux Membres de l'ADC.

Voici le texte de cette présentation:

Notre Association s'intéresse très spécialement à l'amélioration du système de pensions canadien. Nous allons spécifiquement traiter des problèmes que le système actuel de pensions pose aux canadiens travaillant à leur propre compte, et proposer des solutions à ces problèmes qui, à notre avis, sont réalistes. Il y a plus de deux millions de canadiens qui travaillent à leur propre compte, non seulement des dentistes, des docteurs, des avocats et des comptables, mais également des membres d'autres professions libérales, des agriculteurs, des pêcheurs, des athlètes, des comédiens, des artistes et des patrons de petites entreprises.

Il est évident que notre système de pensions pour les employés est loin d'être parfait. Nous allons entreprendre de démontrer pourquoi, dans certains domaines, il est encore plus essentiel d'améliorer le système de pensions pour ceux qui travaillent à leur propre compte.

En bref, notre but, conforme à ces objectifs, est d'obtenir que ceux qui travaillent à leur propre compte bénéficient en gros des mêmes avantages que les employés qui souscrivent à des régimes privés de retraite: étant bien entendu que ceux qui travaillent à leur compte les financeront eux-mêmes.

Il est important de comprendre les différences principales existant entre les régimes privés de retraite pour les

employés et les REER. De nombreux régimes enregistrés d'épargne-retraite fixent les prestations auxquelles a droit l'employé, en fonction de la moyenne de ses meilleures années de salaire, et du nombre d'années de service.

Cependant, il existe des régimes privés de retraite où les prestations sont égales à un montant spécifique de dollars par année de service. De tels régimes ne fournissent pratiquement pas de protection contre l'inflation. Cependant, l'existence de tels régimes pour les employés syndiqués occasionne généralement des négociations collectives, qui résultent en augmentations des prestations de base, et annulent les effets de l'inflation.

Il existe également les régimes de retraite constitués à titre onéreux. On fait des contributions annuelles limitées au régime et on constitue à titre onéreux une rente pour la retraite. C'est le régime qui est le plus vulnérable à l'inflation. Le REER est l'équivalent d'un régime constitué à titre onéreux.

La personne qui travaille à son compte ne dispose que de son REER pour constituer un fonds de retraite jouissant d'avantages fiscaux. L'une des raisons de l'introduction des REER en 1957 était de donner aux personnes qui travaillent à leur compte les mêmes avantages qu'à celles qui sont employées et couvertes par des régimes privés de retraite. L'objectif était bon, mais l'expérience montre qu'il n'allait pas suffisamment loin. Il n'était pas assez adéquat.

À la lumière de nos 25 ans d'expérience, nous pouvons soutenir les points suivants:

Il n'y a pas de mécanisme, dans les REER, qui corrige les effets néfastes de l'inflation.

Les personnes qui travaillent à leur compte n'ont pas le droit d'augmenter leur caisse de retraite, comme les employés et les employeurs. Les employés ont le droit de cotiser pour leur service passé. Les employeurs peuvent augmenter leur caisse de

retraite au moyen de cotisations pour service passé et de cotisations spéciales.

On ne reconnaît pas l'impossibilité dans laquelle se trouvent les personnes jeunes travaillant à leur propre compte de cotiser pendant leurs premières années de carrière. Elles n'ont pas le droit de racheter ces années de pension.

Également, les REER n'ont pas d'indexation pour l'inflation.

Les REER n'ont virtuellement pas de protection contre l'inflation. Une étude faite en 1979 par le Conseil économique sur les pensions privées montre qu'avec un taux annuel d'inflation de seulement 6%, la valeur réelle d'une pension en dollars constants ne représente plus que 56% de sa valeur initiale au bout de 10 ans. Nous vous avons fourni de nouveaux tableaux sur ce sujet, que nous pouvons étudier après notre présentation si vous le désirez.

Lorsqu'on tient compte des effets de l'inflation pendant les années de travail et après la retraite, on réalise que les REER, qui sont le seul régime de retraite de ceux qui travaillent à leur propre compte, laissent beaucoup à désirer.

Comme vous le savez, le plafond de la cotisation pour les REER est de \$5,500 par an. Une personne qui travaille à son propre compte atteint ce plafond lorsqu'elle a un revenu de \$27,500.

En résumé sur l'inflation, la Loi actuelle ne permet pas à un REER seul de constituer un fonds en dollars constants suffisant pour permettre un revenu raisonnable au moment de la retraite. Un système comme le système canadien actuel, en vertu duquel certains retraités sont protégés contre l'inflation et d'autres ne le sont pas, pose des questions fondamentales de justice et d'équité.

Quelle est la solution.

Services au Membres de l'A.D.C. — suite

Nos recommandations sont les suivantes:

1. On doit établir pour les personnes travaillant à leur propre compte un régime de retrait jouissant d'avantages fiscaux, semblable aux régimes enregistrés de retraite.

2. On doit modifier la Loi de l'impôt sur le revenu en y introduisant une indexation automatique du plafond de la cotisation pour les REER.

3. On doit augmenter une fois la base d'indexation de la cotisation aux REER, qui est actuellement de \$5,500, afin de compenser la perte

de valeur réelle due à l'inflation depuis la dernière augmentation de plafond en 1976.

4. Il faut modifier la Loi de l'impôt sur le revenu afin d'y introduire la possibilité de cotiser à un REER, pour des années antérieures où la cotisation était inférieure au plafond.

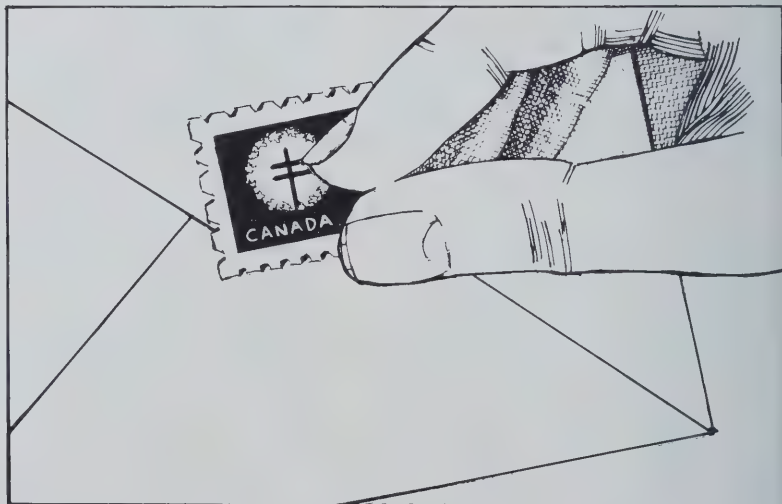
La réforme des pensions doit garantir que les canadiens qui travaillent à leur propre compte sont traités pratiquement de la même manière par l'impôt sur le revenu que les employés qui souscrivent à des régimes privés de retraite dans le cadre de leur entreprise.

Un système de pension amélioré doit, d'une manière réaliste et pratique, permettre à tous les canadiens de cotiser adéquatement à leur fonds de retraite, au moyen de régimes de retraite jouissant d'avantages fiscaux, et doit combattre rapidement et raisonnablement les effets de l'inflation. Pour obtenir un tel système, il faut simplifier plutôt que compliquer.

Pour ceux qui travaillent à leur propre compte, les moyens les plus réalistes de réaliser les objectifs de la réforme des pensions sont l'établissement d'un vrai régime de retraite qui serait réservé, et la modification du plafond de la cotisation aux REER.

Faites le bon geste.

Depuis plus de 50 ans vos dons au Timbre de Noël ont contribué à l'implantation d'une importante recherche médicale. La recherche scientifique en pneumologie, a contribué à la régression de la tuberculose et au progrès du traitement et de la prévention, dans la lutte contre les maladies respiratoires comme l'emphysème, l'asthme, la bronchite chronique et le cancer du poulmon. Vos dons au Timbre de Noël nous aideront à vaincre les ennemis du poulmon. Des millions de Canadiens respireront beaucoup mieux. Pour plus d'information, contactez votre Association Pulmonaire.



Donnez au Timbre de Noël.

Votre  Association pulmonaire
"Le monde du Timbre de Noël"

En bref —

Les cliniques dentaires permanentes du Nouveau-Brunswick qui devaient être fermées le 1^{er} septembre dernier le seront seulement à la mi-décembre.

Conçues principalement à l'intention des travailleurs pauvres, ces cliniques seront fermées à la suite des restrictions économiques imposées par le gouvernement provincial. Cependant, à la fin de l'été, le ministre provincial de la Santé a reculé l'échéance.

"Grâce à ce délai, a observé le directeur exécutif de la Société dentaire du Nouveau-Brunswick, le Dr Jack Thompson, la société et les dentistes de la province auront le temps de faire valoir leurs arguments et de contester cette décision. La société est en train de préparer, à l'intention du ministre de la Santé, un mémoire touchant les cliniques visées."

Situées à Moncton, Frédéricton et Saint-Jean, ces cliniques sont utilisées, de dire le Dr Thompson, par les travailleurs pauvres de la province depuis plusieurs années.

On se souviendra que c'est à la suite des protestations formulées par les dentistes de la province que le gouvernement est revenu sur sa décision de mettre fin à son programme de services dentaires.

"On espère qu'en exprimant notre avis au gouvernement touchant les cliniques permanentes, on obtiendra des résultats aussi heureux," a conclu le Dr Thompson.

Il est aussi difficile pour les dentistes danois que pour les dentistes canadiens de convaincre le public de la nécessité de les visiter régulièrement.

Des 1,100 adultes interrogés au Danemark en 1980, environ le quart ne sont jamais allés chez le dentiste, les deux tiers ont visité le dentiste une fois l'an durant les cinq années précédentes et environ huit pour cent l'ont visité de façon irrégulière.

D'après le même sondage, plus de jeunes que d'adultes et plus de femmes que d'hommes visitent le dentiste. Les principales raisons évoquées pour ne pas aller chez le dentiste sont la crainte que celui-ci inspire et la peur d'avoir à porter des dentiers.

Toutefois, comparé à un sondage effectué cinq années plus tôt, le pourcentage des personnes qui vont régulièrement chez le dentiste s'est accru de cinq pour cent dans tous les groupes.

Comme ceux qui ne voient pas le dentiste régulièrement appartiennent à tous les groupes, il est difficile pour le Danemark d'élaborer un programme de sensibilisation.

Page couverture

La page couverture offre un aperçu de ce que sera, vers la fin de l'année 1984, le nouvel immeuble de cinq étages qui abritera l'École dentaire de l'Université de Toronto.

L'immeuble, vu ici à partir de la maquette de l'architecte, fera partie d'un projet de 19 millions de dollars, dont l'addition de deux étages à l'aile nord d'une construction actuelle.

De l'avis du doyen, Richard Ten Cate, l'espace faisait gravement défaut depuis longtemps et, ces dernières années, on a dû louer à prix fort des locaux dans un immeuble voisin.

La rédaction tient à remercier David Keeling, adjoint du doyen (administration), pour la photographie et les précisions touchant le projet en question.

Le Dr Douglas Yeo, président de la Division canadienne du Collège international des dentistes (CID), vient d'annoncer que Montréal sera l'hôte des assemblées du Conseil exécutif du CID en 1984. C'est la première fois, croit-on savoir, que le collège tiendra ses assemblées à l'extérieur des États-Unis.

Le Dr William Spence, de Toronto, ancien président de l'ADC et actuel secrétaire général de la Division canadienne du CID, en a été élu vice-président l'an dernier. C'est à ce titre qu'il prendra part aux assemblées qui se tiendront à Montréal.

Selon le Dr Yeo, "les membres de la Deuxième Division ont reconnu d'un commun accord que l'avenir de la profession dépend de l'engagement des jeunes gens qui s'y joignent. C'est pourquoi nous accordons à chaque école dentaire canadienne une bourse, la bourse du CID, destinée aux meilleurs étudiants de troisième année. De plus, un don appréciable est fait chaque année au Fonds canadien pour l'enseignement dentaire. Actuellement, nous étudions une proposition visant à établir un programme de subvention pour les domaines qui, en dentisterie, ne sont nullement appuyés et qui, pourtant, ont besoin d'aide. Ceux-ci tireraient sans doute profit d'un seul appui financier."

Le Dr David Blair a été nommé président du Club dentaire de Montréal pour 1983-84.

Les autres officiers comprennent: le Dr Tom Oliver, président désigné; le Dr Robert Miller, vice-président; le Dr Peter Woolhouse, président sortant; le Dr Peter Owen, secrétaire; le Dr George Griffiths, trésorier; et le Dr Jim Rowlands, historien et archiviste.

Les administrateurs complétant leur mandat de deux ans sont les Drs David Hamilton, George Harasymowycz et Richard Emery.

Les nouveaux administrateurs sont Rita Hurley, Ed Khazen et Danielle Venne.

La légende de la bonne fée qui recueille les dents de lait est maintenant une réalité. En tout cas, la bienveillante dame a élu domicile à Etobicoke, en Ontario.

Le Dr Sam Green, directeur de la communauté dentaire de l'endroit, a eu l'idée d'y créer, il y a quelques années, la *Tooth Fairy Society of*

En bref (suite)

Canada à l'intention des jeunes. Pour se joindre à la société, les enfants doivent y faire parvenir une dent temporaire. Le Dr Green reçoit plus de 1500 dents de lait par année; elles lui sont adressées de toute l'Amérique du Nord et même de l'Europe. En échange, les enfants reçoivent des renseignements gratuits sur l'hygiène dentaire.

Outre cette société, le Dr Green dirige les *Thumbsucker's Anonymous* à l'intention des suceurs de pouce invétérés. Lorsque l'enfant envoie un dessin du pouce ou de l'index qu'il suce à la division de la Santé d'Eto-bicoke (Civic Centre, Etobicoke, Ontario, M9C 2X2), il reçoit une pochette brune contenant des conseils pour l'aider à se corriger de sa vilaine habitude et un, *Fuzzy Wuzzy*, bizarre créature de couleur rose qu'il peut suspendre dans la pièce où il se suce le pouce le plus souvent.

"Au lieu de recourir à des méthodes sévères souvent inutiles, on se sert de l'étrange animal pour rappeler gentiment à l'enfant de ne pas sucer son pouce," a commenté le Dr Green.

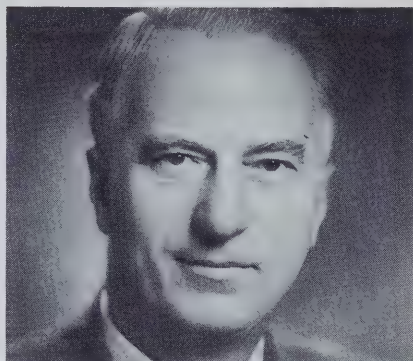
En outre, les incorrigibles peuvent composer un numéro de téléphone pour obtenir gratuitement des conseils.

Enfin, en s'adressant à la division de la Santé d'Etobicoke, les parents aussi peuvent obtenir des renseignements sur les dents des enfants, l'hygiène dentaire des bébés, la poussée des dents et la fluoruration.

Le coeur n'a pas d'âge, dit-on, et le Dr R.P. (Perc) Lowrey et Mme Dorothy Pepper, âgés respectivement de 87 et de 86 ans, sont entièrement de cet avis.

En effet, ils se sont épousés récemment, lui après un veuvage de deux ans et elle après un veuvage de 24 ans. Tous deux se connaissaient depuis de nombreuses années et c'est tout simplement à la suite d'une rencontre fortuite dans un supermarché qu'ils ont

entrepris de se fréquenter, puis de s'épouser.



Le Dr R.P. (Perc) Lowrey lorsqu'il était président de l'ADC en 1950-51.

Présidée par deux ministres de la *United Church* qui sont également deux fils de M. Lowrey, la cérémonie a eu lieu chez la fille de Mme Pepper en présence de nombreux enfants, petits-enfants et arrière-petits-enfants.

Président de l'Association dentaire canadienne en 1950-51 et ancien président de l'Association dentaire de l'Ontario, le Dr Lowrey habite à North York avec sa nouvelle épouse.

Les dentistes de la Saskatchewan entreprennent la troisième année du régime dentaire provincial pour les jeunes de 14 à 16 ans.

Selon le Dr George Peacock, secrétaire et trésorier du Collège des

chirurgiens dentistes de la Saskatchewan, environ 95 pour cent des dentistes de la province participent au régime. "Il semble que celui-ci soit avantageux pour le public, le gouvernement et la profession," a-t-il fait observer.

"Le régime couvre 72,8 pour cent des adolescents de la province, a-t-il ajouté. "Cette année, les dentistes prévoient traiter 29,000 adolescents en vertu de ce programme."

Tôt cette année à Genève, l'Assemblée mondiale de la santé a fortement appuyé la mise en vigueur d'un programme international de santé bucco-dentaire.

Au cours d'une séance spéciale d'information portant sur le programme de santé bucco-dentaire et les stratégies de l'avenir, le directeur exécutif de la FDI a fait état du programme de développement coopératif international en matière de santé bucco-dentaire.

Après avoir discuté ce programme, l'Assemblée mondiale de la santé a donné un appui enthousiaste à la résolution visant à demander à l'Organisation mondiale de la santé de lancer ce programme avec les ressources déjà disponibles.

Régime d'épargne-retraite de l'ADC

Les valeurs respectives du Régime d'épargne-retraite de l'Association Dentaire Canadienne étaient les suivantes au 30 septembre 1983.

<i>Fonds d'actions ordinaires</i>	\$75.40087
<i>Fonds à revenu fixe</i>	\$36.90185
<i>Fonds garanti</i>	\$26.89581
<i>Fonds de placement</i>	\$15.32383

L'avoir total (valeur marchande) du régime s'élevait à \$37,857,710.

Au 31 août 1983, les chiffres du mois précédent étaient les suivants:

<i>Fonds d'actions ordinaires</i>	\$74.74746
<i>Fonds à revenu fixe</i>	\$36.05397

<i>Fonds garanti équilibré</i>	\$26.67438
	\$15.04013

L'avoir total (valeur marchande) du régime s'élevait à \$37,386,323.

Pour de plus amples renseignements, veuillez écrire à l'adresse suivante: Canadian Dental Service Plans Inc., Ste. 600, 2 Lansing Square, Willowdale, Ontario M2J 4Z3, ou appeler le service de renseignements du CDSPI en composant 1-800-268-5418 (appel sans frais pour l'Ouest canadien, les Maritimes et l'Ontario où le code est 807 seulement), 1-800-268-3411, (appel sans frais pour le Québec et l'Ontario sauf où le code est 807), et 497-7117 (Région métropolitaine de Toronto).

The effectiveness of irrigation in endodontics

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The root canal system of a tooth requiring endodontic therapy may contain pulpal tissues in various stages of degeneration, and/or micro-organisms plus their by-products, and therefore it should be treated like a contaminated wound.

Traditional treatment requires various sizes and shapes of instruments to surgically debride the canal and to shape the walls for convenience in obturating the prepared space. Lavage is a necessary adjunct to debridement procedures, since root canal instruments alone do not cleanse adequately.

The effectiveness of the devices used in lavage have not been extensively studied, and the purpose of this study was to compare three endodontic irrigating delivery systems:

- 1) The Endovage* syringe with a 27 and 30 gauge IMAX needle (Figs. 1, 2a and 2b). This syringe automatically aspirates following irrigation, when pressure on the plunger is released;
- 2) A conventional hypodermic needle 27 gauge and luer-lock syringe (Fig. 2c); and
- 3) The P.E.R.C.** needle, 30 gauge and luer-lock syringe (Fig. 2d).

LITERATURE REVIEW

Irrigation has been well accepted as part of endodontic therapy, and many different solutions and substances

Le réseau des canaux radiculaires d'une dent requérant des soins d'endodontie peut contenir des tissus pulpaux ayant dégénéré à divers degrés ou des micro-organismes ainsi que leurs sous-produits. Il faut donc les traiter comme une plaie infectée.

have been used.¹⁻⁸ Grossman^{2,3} strongly advocated chlorinated soda alternated with hydrogen peroxide. Ingle⁵ suggested that the consensus recommended using 5.25 per cent NaOCL. This solution has had great popularity and possesses many beneficial *in vitro* properties, such as tissue tag dissolution, antibacterial and bleaching effects.^{2,3,5,7-9}

Grossman³, in describing the technique of irrigation, stated that the needle should be loosely placed in the canal without binding, so there is room for the return flow of the solution. The depth of needle penetration ranged from the orifice to half the length of the canal. However, Senia and his colleagues⁸ using light microscopy, and Lester and Boyde,⁹ using scanning electron microscopy, showed that the positive effects of NaOCL were achieved only when the solution had contacted the root canal contents. Furthermore, the apical 5 mm was not properly cleaned.

Additional negative findings were provided by Gutierrez and Garcia¹⁰ when they showed that NaOCL crystallized in the root canal system, which might interfere with tight obturation. Spangberg⁷ showed NaOCL to be cytotoxic in contact with Hela and L cells. Therefore, the question is, if this substance penetrated into the periapical area, would it retard biological healing? Some answers were provided by Salzgeber and Brilliant,¹¹ who illustrat-

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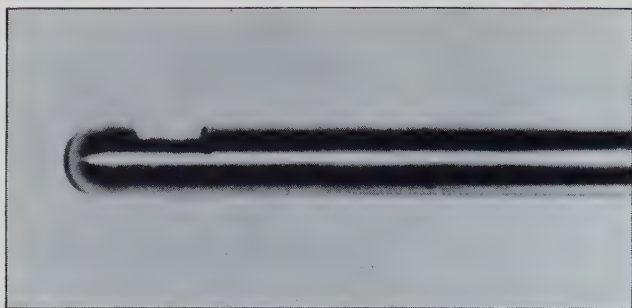


Fig. 1. IMAX cannula. Note the slotted side window opening with the closed rounded end.

ed the high probability of periapical penetration. Using Hypaque 50+ per cent as their irrigant with a standardized technique, as per Grossman, they demonstrated liquid beyond the apex. When they compared vital and necrotic cases, the latter allowed for more rapid and more frequent penetration. In addition to supporting these findings, Ram's work¹² also showed that the amount of material

†Hypaque 50 per cent is a radiopaque liquid of similar specific gravity and surface tension to NaOCL.

forced out of the apex increased with the pressure of irrigation. The significance of this finding is highlighted by the case report in Ingle's textbook⁵ of severe tissue emphysema and periapical inflammation when NaOCL was alternated with hydrogen peroxide. Furthermore, Rosenfeld et al¹³ state that NaOCL itself has a strong non-specific solvent action on vital intact pulp tissue in non-confined areas. Therefore, if this solution penetrated the periapex, surely the effect on the periodontal ligament and surrounding tissues would be detrimental to biological healing.

In view of these investigations, serious questions can be raised as to the usefulness of cytotoxic materials as irrigants and their method of delivery, especially since Baker et al¹ have pointed out that of all the solutions tested as irrigants, including NaOCL and physiological saline, none was superior. Therefore, it follows that since root canal systems and their surrounding tissues are biological entities, they should be treated as such. Thus biocompatible alternatives should be used as irrigants, e.g., physiological saline and sterile water. The present study selected water, partly because of the previously mentioned reasons and

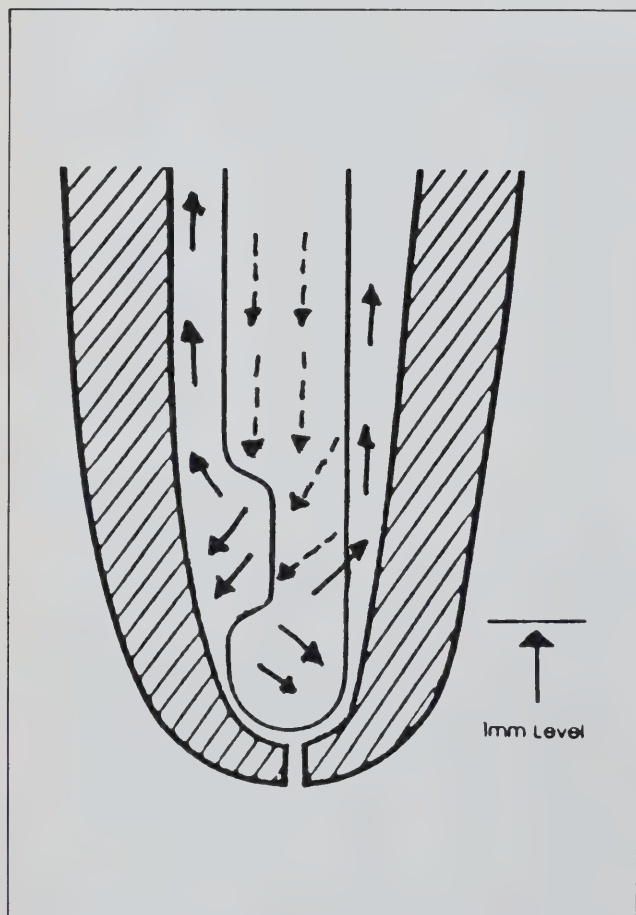
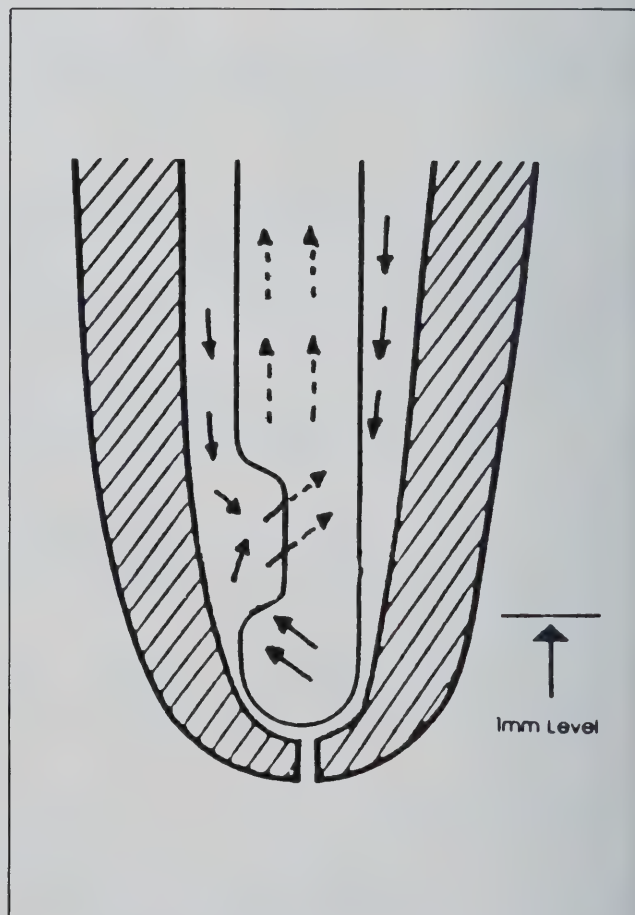


Fig. 2(a) IMAX cannula, depicting fluid movement during irrigation. Note that the cannula is blocking the apical foramen.



b) IMAX cannula, depicting fluid movement during automatic aspiration. Note that the cannula blocks the apical foramen.

partly because we wished to evaluate the physical action of lavage, with regard to cleanliness and extrusion of irrigant past the apices of prepared teeth.

METHODS and MATERIALS

Eighty-two mesial roots of extracted first and second molars which contained tissue were divided into three groups. All teeth were prepared with Gates Gliddens and files until a #40 K-type file fit loosely in the canal 0.5 mm from the surface of the apical foramen.

During preparation, canals were irrigated in one of two ways, using three different types of needles. Irrigation was used after each instrument change for a total of 15 cc. The final irrigation was carried out with the needle tip at the apical seat.

Group 1 — compared 30 canals:

- (1a) 15 canals were irrigated with the Endovage-IMAX system using a 27-gauge needle (**Figs. 1, 2a, 2b**);
- (1b) 15 canals were irrigated with a standard 27-gauge needle and Luer Lock syringe (**Fig. 2c**).

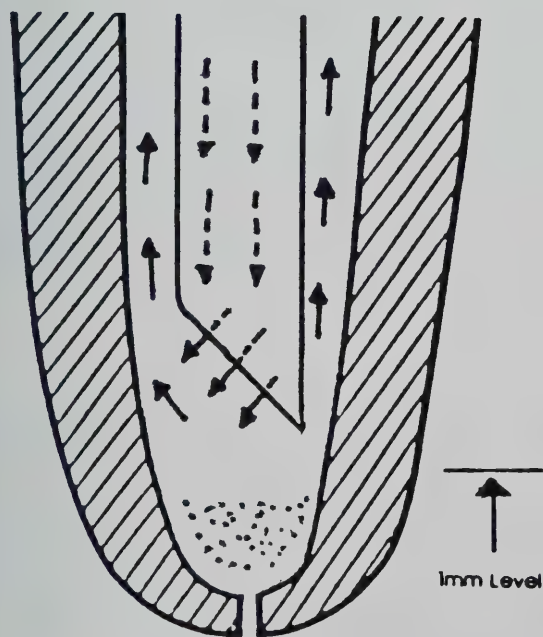
Group 2 — compared 26 canals:

- (2a) 13 canals were irrigated with water and an Endovage-IMAX syringe using a 30-gauge needle.
- (2b) 13 canals were irrigated with a standard 27-gauge needle and Luer Lock syringe.

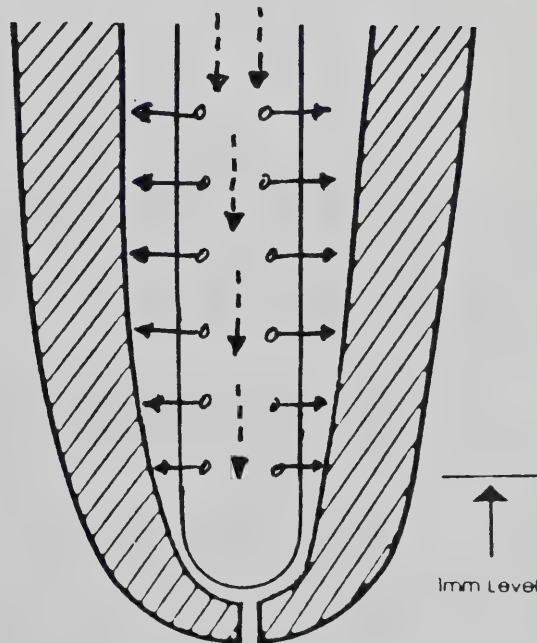
Group 3 — compared 26 canals:

- (3a) 13 canals were prepared and irrigated using the Endovage-IMAX syringe using a 30-gauge needle.
- (3b) 13 canals were prepared and irrigated with water using a 30 gauge P.E.R.C. needle (**Fig. 2d**) and Luer Lock Syringe.

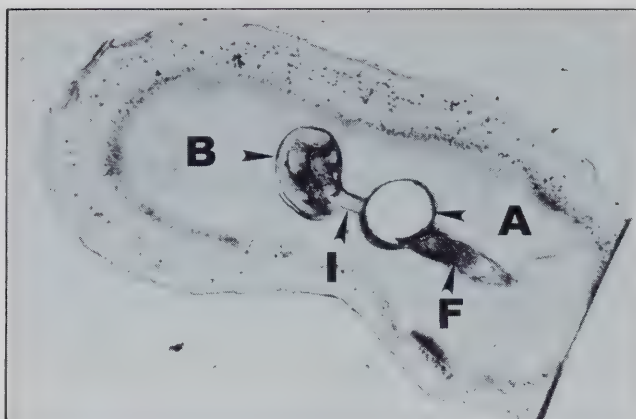
The prepared roots were notched prior to sectioning to identify those irrigated with the Endovage-IMAX system. They were stored in neutral buffered formalin, then dehydrated and embedded in Epon. Two X-sections, 100 μ thick, were taken from each root at 1 mm. and 3 mm. from the apex. These sections were stained with basic fuchsin and counter-stained with picric acid, as per Senia et al.⁸ After mounting on glass slides, both outer surfaces of the roots were covered so the evaluators were unaware of which irrigating system was used in each root.



c) Regular hypodermic needle, depicting fluid movement during irrigation. Note debris or sludge settling at the apical foramen and distance of needle opening from the apex.



d) P.E.R.C. needle, depicting fluid movement during irrigation. Note that the needle blocks the apical foramen and that flow is one way only.



Figs. 3. A 100 u cross-section at the 1 mm level. Note that canal A, treated with the Endovage system and an IMAX 27 ga cannula was cleaned better (*score 2*) than canal B, cleaned with the Luer syringe and a 27 ga hypodermic needle (*score 0*). The canals are somewhat oval but the preparations remain centred in the canals and the isthmus and flute remain untouched by either instrumentation or irrigation.

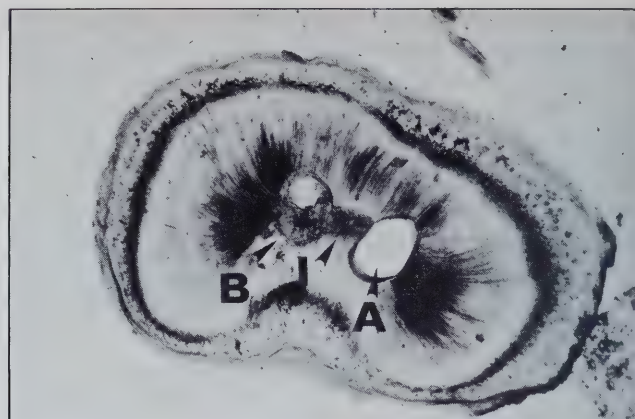


Fig. 4. A 100 u cross-section at the 1 mm level. Note that canal A, treated with the Endovage system and a 30 ga IMAX cannula, was cleaned better (*score 2*) than canal B, cleaned with the Luer syringe and a 27 ga hypodermic needle (*score 1*). The isthmus remained untouched and the canals are somewhat oval in shape, but the preparation technique did not appreciably transpose the canals.

TABLE I

	Endovage System (27 ga. Regular)	Standard System (27 ga. Regular)	Evaluation
1 mm.	22	10	P = .05 S. S. C = 2.46 t=2.04
	21	8	P = .05 J. H. C = 3.107 t=2.048
	19	6	P = .05 R. G. C = 2.96 t=2.048
3 mm.	22	20	NO S. S.
	22	23	SIGNIFICANT J. H.
	23	21	DIFFERENCE R. G.

CANAL CLEANLINESS

Note the *sum of the scores (0-3)* for canal cleanliness (15 teeth) at the 1 mm. and 3 mm. levels as rated by three evaluators. The Endovage syringe with water and a 27 ga. IMAX Cannula cleaned significantly better at the 1 mm. level than the traditional Luer syringe, using a similar 27 ga. hypodermic needle. Note also that the canals at the 3 mm. level were similarly and equally clean.

TABLE II

	Endovage System (30 ga. IMAX)	Standard System (27 ga. Regular)	Evaluation
1 mm.	17	5	P = .05 S. S. C = 3.3 t=2.064
	21	10	P = .05 J. H. C = 3.76 t=2.064
	16	6	P = .05 R. G.
3 mm.	19	16	NO S. S.
	23	24	SIGNIFICANT J. H.
	19	19	DIFFERENCE R. G.

CANAL CLEANLINESS

Note the *sum of the scores (0-3)* for canal cleanliness (13 teeth) at the 1 mm. and 3 mm. levels as rated by three evaluators. The Endovage syringe with water and a 30 ga. IMAX Cannula cleaned significantly better at the 1 mm. level than the traditional Luer syringe, with the 27 ga. hypodermic needle. The canals at the 3 mm. level were and equally clean.

EVALUATION

Three independent observers examined all canals at 100X magnification, using the light microscope. The recorded scores were examined for statistical significance using a t-test.

Canals that were unclean and had debris completely covering the wall were scored "0". Canals that showed 1/3 of the wall bare and clean were scored "1". Those that were 2/3 clean were scored as "2" and those showing the wall completely clean were scored "3". When an isthmus showed debris and the remaining canal was clean and sound, these canals were scored "3".

- 0 = not cleaned
- 1 = 1/3 cleaned
- 2 = 2/3 cleaned
- 3 = all cleaned.

RESULTS

Group 1

When the canals (Fig. 3) were irrigated using the Endovage syringe system (irrigation-aspiration) with 27 ga IMAX cannula, the walls at the 1 mm level were cleaner than those irrigated using the standard Luer syringe with a 27 ga standard hypodermic needle. When the sums of the scores (0-3) for the three evaluations were averaged and compared statistically, the Endovage "active" system cleaned significantly better than the standard "passive" system (Table I).

Group 2

When the canals (Fig. 4) were irrigated using the Endovage syringe system (irrigation-aspiration) with a 30 ga IMAX cannula (window), the canals examined at the 1

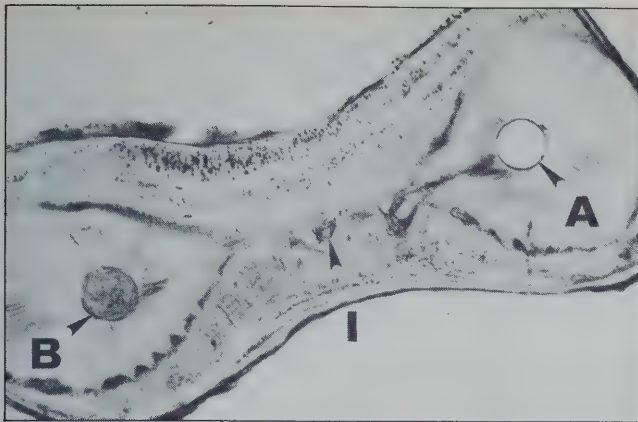


Fig. 5. A 100 u cross-section at the 1 mm level. Canal A, treated with the Endovage system and a 30 ga IMAX cannula (side window design), was cleaned better (score 3) than canal B, cleaned with the traditional Luer syringe and a 30 ga P.E.R.C. (multi-perforated) needle (score 0). Note the possible extra canal in the isthmus. The canals also appear round and the preparation technique did not transpose the canals.



Fig. 6. A 100 u cross-section at the 3 mm level. Canal A, treated with the Endovage system and a 30 ga IMAX cannula, was cleaned well (score 2) and canal B, cleaned with the traditional Luer syringe and a 27 ga hypodermic needle, was cleaned equally well at this level (score 2). The isthmus contained a possible third mesial canal and the canals were mostly round and centred.

mm level were cleaner than those irrigated using the standard Luer syringe (no aspiration) with a 27 ga hypodermic needle.

When the sums of the scores (0-3) for the three evaluations were averaged and compared statistically, the Endovage system cleaned significantly better than the standard system (Table II).

The canals at 3 mm were equally clean when irrigated with either the Endovage syringe and the 30 ga IMAX cannula or the Luer syringe with a 27 ga hypodermic needle.

Group 3

When the canals (Figs. 5 and 6) were irrigated using the Endovage system (irrigation-aspiration) with a 30 ga IMAX cannula, the walls at the 1 mm level were cleaner



Fig. 7. A 100 u cross-section at the 3 mm level. Canal A, treated with the Endovage system and a 30 ga IMAX cannula, was cleaned poorly (score 1) and canal B, cleaned with the traditional Luer syringe and a 30 ga P.E.R.C. needle was cleaned better (score 2). The isthmus contained a possible extra canal and the main canals were round and centred.

TABLE III

	Endovage System (30 ga. IMAX)	Standard System (30 ga. Regular)	Evaluation
1 mm.	20	11	P = .01 S. S. C = 2.538 t=2.064
	21	12	P = .01 J. H. C = 1.942 t=1.711
	19	10	P = .05 R. G. C = 2.13 t=2.064
3 mm.	23	14	NO S. S.
	20	16	SIGNIFICANT J. H.
	19	15	DIFFERENCE R. G.

CANAL CLEANNES

Note the sum of the scores (0-3) for canal cleanliness (13 teeth) at the 1 mm. and 3 mm. levels as rated by three evaluators. The Endovage System with water and a 30 ga. IMAX needle cleaned significantly better at the 1 mm. level than the standard system with the 30 ga. P.E.R.C. needle. The canals at the 3 mm. level were and equally clean.

than those irrigated using the standard Luer syringe and a 30 ga P.E.R.C. needle (Fig. 7). When the sum of the scores (0-3) for the three evaluators were averaged and compared, the Endovage system cleaned significantly better than the conventional syringe and the 30 ga P.E.R.C.* needles (Table III). The canals at the 3 mm level were equally clean when using either the Endovage syringe and the 30 ga IMAX cannula or the Luer syringe and the 30 ga P.E.R.C. needle.

DISCUSSION

The overall scores reflect the great difficulty in completely cleansing the canals at any level, regardless of the irrigating system used. Complete cleansing (score 3)

*N.P.D. Dental Systems, Melville, N.Y. 11746.

was reported only seven times at either the 1 mm or 3 mm levels by the three evaluators. Four of these observations (score 3) were at the 1 mm level, whereas the evaluators noted 92 canals unclean (score 0) at the 1 mm level.

There were no differences in cleansing at the 3 mm level regardless of which delivery system was used. This could be due to instrumentation which produced a greater intracanal flare, thus increasing the efficacy of irrigation regardless of the system used. At the 1 mm level, however, cleaning was significantly better when the Endovage-IMAX system was compared to the P.E.R.C.* or standard systems. This could be due to the turbulence of the solution when lavage was followed by aspiration, and the debris was not allowed to settle, as shown by Doran and Brown.¹⁴ Better cleansing could also be due to operator confidence in knowing that a sealed-end needle (IMAX and P.E.R.C.) would not push debris out of the apex. Indeed this finding was borne out in our study. It was also noted that a large number of isthmuses connected the canals, and these were generally left uncleaned (figs. 3 and 4).

It must also be recognized that these tests were carried out on relatively straight canals. Thus it is doubtful if any delivery system could deliver irrigant to the apical 1 mm of a severely curved canal. This of course further reduces the cleansibility of such canals and possibly reduces their sealing potential and subsequent success. This study compared cleaning with 27 and 30 ga needles and #40 file size at the apices. These sizes of files were necessary to allow for the needles to penetrate as far as the instrument went (Table IV). The manual pressure required to push irrigant through a 30 ga IMAX or P.E.R.C. was so great that this investigator questions its use. However, this was not the case with the 27 ga needle, regardless of type.

SUMMARY and CONCLUSIONS

1. The Endovage system with a 27 ga or 30 ga IMAX cannula cleaned better at the 1 mm. level than did other systems tested.
2. All irrigating devices cleaned equally well at the 3 mm. level but left many canals unclean.

TABLE IV

FILE	NEEDLE GAUGE	NEEDLE O.D.
30	30	0.30
40	27	0.40
55	25	0.50
60	23	0.625

Relative Instrument Sizes

Note the outside diameter as it compares to the standardized file size and needle gauge number.

3. The IMAX and P.E.R.C. needles did not allow extrusion of irrigant through the apex.
4. The P.E.R.C. needle readily separated when bent to simulate clinical conditions. It also showed less flow from the apical perforations and more flow from those perforations towards the hub.
5. The effect of irrigation needs to be studied in preparing small and curved canals. Perhaps a reduced concentration of tissue solvent may be of value in these cases.

This paper was submitted in partial completion of the requirements for a certificate in endodontology at Oregon Health Sciences University.

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REFERENCES

1. Baker, N.A., Eleazer, P.D., Auerbach, R.E. et al. A scanning electron microscope study of the efficacy of various irrigating solutions. *J Endod* 1:127, 1975.
2. Grossman, L.I. Irrigation of root canals. *JADA* 30:1915, 1943.
3. Grossman, L.I. *Endodontic Practice*. Ed. 9. Philadelphia, Lea & Febiger, 1978.
4. Harrison, J.W., Svec, T.A. and Baumgartner, J.O. Analysis of clinical toxicity of endodontic irrigants. *J Endod* 4:7, 1978.
5. Ingle, J.I. and Beveridge, E.E. *Endodontia*. Ed. 2. Philadelphia, Lea & Febiger, 1976.
6. Rowe, A.H. Preparing the root canal. *Dent Update* 4:4, 1977.
7. Spangberg, L. Cellular reaction to intracanal medicaments. Trans. 5th Int. Conference Endo. Grossman, L.I. ed. University of Pennsylvania, Philadelphia, 1973.
8. Senia, E.S., Marshall, F.J. and Rosen, J. The solvent action of sodium hypochlorite on pulp tissue of extracted teeth. *Oral Surg*. 32:96, 1971.
9. Lester, K.S. and Boyde, A. Scanning electron microscopy of instrumented, irrigated and filled root canals. *J Br Endo Soc* 141:11, 1977.
10. Gutierrez, J.H. and Garcia, J. Microscopic and macroscopic investigation on result of mechanical preparation of root canals. *Oral Surg* 25:108, 1968.
11. Salzgeber, R.M. and Brilliant, J.O. An in vitro evaluation of the penetration of solutions in root canals. *J Endod* 3:394, 1977.
12. Ram, Z. The effectiveness of root canal irrigation. *Oral Surg* 2:306, 1977.
13. Rosenfeld, E.F., James, G.A. and Buckner, S.B. Vital pulp tissue response to sodium hypochlorite. *J Endod* 4:140, 1978.
14. Doran, J.E. and Brown, J.I. An in vitro study of the particle flotation capability of various irrigating solutions. *Calif Dent Assoc J* 3:60, 1975.

Factors affecting dowel (post) selection and use in endodontically treated teeth

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Portland, Oregon

ABSTRACT

Practitioners are often confronted with the problem of utilizing dowels when restoring endodontically treated teeth. The purpose of this article is to review the pertinent literature concerning dowels, their characteristics, method of employment and time of insertion. Guidelines based upon sound principles gathered from clinical and laboratory observations are provided.

Endodontically treated teeth are weakened due to a decreased or altered tooth structure, which can be attributed to one or a combination of the following factors: 1) caries, 2) previous restorations, 3) trauma, 4) endodontic access opening, canal instrumentation and irrigation, and 5) a decreased moisture content of the tooth.¹

The restoration of an endodontically treated tooth must then ensure that the tooth is restored to function, that the tooth is able to resist functional loads which can precipitate coronal and/or root fractures, and that periodontal health is maintained.

To accomplish the above, single or multiple surface restorations are employed. These restorations alone often satisfy the stated needs and thus ensure the health and integrity of the tooth and surrounding periodontium.² Frequently, "dowels"³ or pins are used in combination with the restoration. However, there does not appear to be one universally accepted restorative technique, and thus each tooth must be considered individually, prior to placing the final restoration; otherwise, crown fractures due to inadequate cuspal protection (Fig. 1), horizontal root fractures (Fig. 2), vertical root fractures (Figs. 3 and 4) or root perforations (Fig. 5) may result.

SOMMAIRE

Lorsqu'ils font des traitements de la pulpe dentaire, les dentistes doivent souvent utiliser des tenons, ce qui n'est pas sans causer des problèmes. Le but de cet article est de réviser les publications portant sur les tenons, les caractéristiques de ceux-ci, leur mode d'emploi et le temps de la pose. On trouvera des directives émanant de principes éprouvés formulés à la suite d'observations effectuées en clinique et en laboratoire.



Fig. 1. Oblique crown fracture due to inadequate cuspal protection.

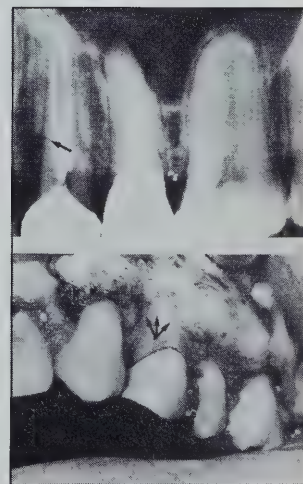


Fig. 2. Horizontal root fracture (arrow) following traumatic incident: (top) radiographic view, (bottom) clinical view — note suprabony level and extent of fracture line.

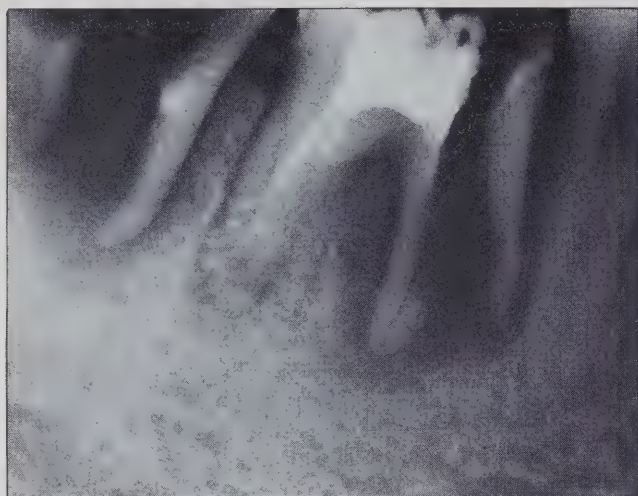


Fig. 3. Vertical root fracture following improper endodontic and restorative treatment.

It has been suggested that all endodontically treated teeth be restored with a reinforcing dowel.⁴ This concept, however, would not have prevented the failure evidenced in Figure 3, and it contributed to failure as evidenced in Figure 4 and 5. Therefore it is imperative that the restora-

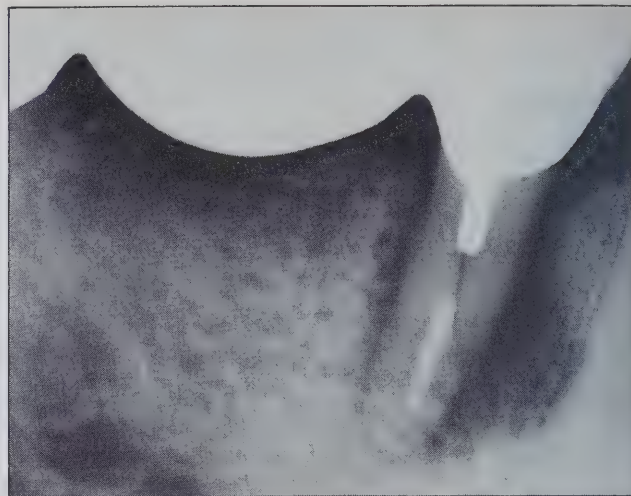


Fig. 4. Vertical root fracture was not presented by utilizing a dowel.

tive procedures employed are based upon sound principles. It is the intention of this paper to review the use of dowels in restoring pulpless teeth, and to present a protocol for their most effective management.



Fig. 5. Root perforation due to dowel space preparation: (a) tapering smooth surface dowel, (b) gutta percha in fistulous tract.

1. WHEN to PLACE DOWELS

Ideally, dowels should be placed when endodontic treatment is both clinically and radiographically successful. Practically, however, a dowel can be placed when clinical examination of the tooth and periodontium indicates impending healing (Table I).

TABLE I

DETERMINANTS of ENDODONTIC SUCCESS	
CLINICAL	RADIOGRAPHIC
(1) No pain	(1) Densely packed and complete root canal filling
(2) No swelling	(2) No evidence of a peri-apical radiolucency
(3) Absence of fistula or draining sulcus	(3) Normal periodontal ligament space
(4) Colour of gingiva — normal	(4) Intact lamina dura
(5) Percussion (negative)	(5) No active resorptive defects
(6) Palpation (negative)	(6) No evidence of root fractures

As root canal treatment is not 100 per cent successful,^{5,6} patients receiving a dowel should be informed of the possibility of future endodontic retreatment or apical surgery, if necessary.

2. WHEN and HOW to PREPARE DOWEL SPACES and EFFECT on the APICAL SEAL

Dowel spaces can be prepared immediately following obturation of the root canal system or later, without jeopardizing the apical seal.⁷⁻⁹ The physical preparation of the dowel spaces can be accomplished with Gates Glidden burs or warm pluggers and files. With proper root canal preparation and obturation, micro-leakage is insignificant beyond 3 mm from the root apex.¹⁰ The preparation of dowel spaces as described does not appear to alter the apical seal. In fact, it is suggested that perhaps the seal is even better if rotary instruments are used, as opposed to warm pluggers and files.¹¹

3. HOW TO PLACE DOWELS

Installation stresses in the dowel systems studied are minimal,¹² if dowels are placed within the prepared root canal and parallel to the long axis of the root. All dowels should be used with a cementing medium, not only for retention but also to fill any voids between the dowel and dentine interface or dowel and root canal filling interface. Dowels should be held firmly in position until the luting agent has set. This luting agent should be mixed according to manufacturer's specifications and be uniformly thick around the dowel. Systems with presized drills and dowels best meet this need.

When placing dowels, especially threaded dowels, an anti-torque device should be added so that torsional forces, exerted during core preparation, will not result in movement of the cemented dowel and subsequent clinical failure.¹³⁻¹⁵

4. HOW to REMOVE DOWELS

Ideally, dowels should be removable in order to re-treat unsuccessful endodontic cases (Fig. 6), especially if a surgical approach is contra-indicated, or in failed restorative cases (Fig. 7). Threaded dowels, no matter how they are luted, are easily removed when the "head" can be grasped and unscrewed (Fig. 6). Dowels luted with orthophosphoric acid cement have been successfully removed by disruption of the cement seal. The motion of an ultrasonic instrument on the dowel accomplished this result. Dowels composed of soft metals are easily cut away. Caution, however must be exercised as removal of any dowel may generate force that results in root fracture. As this possibility exists, patients should be informed of the consequences of the procedure and this may dictate a surgical approach to treatment (apical surgery or intentional replant).

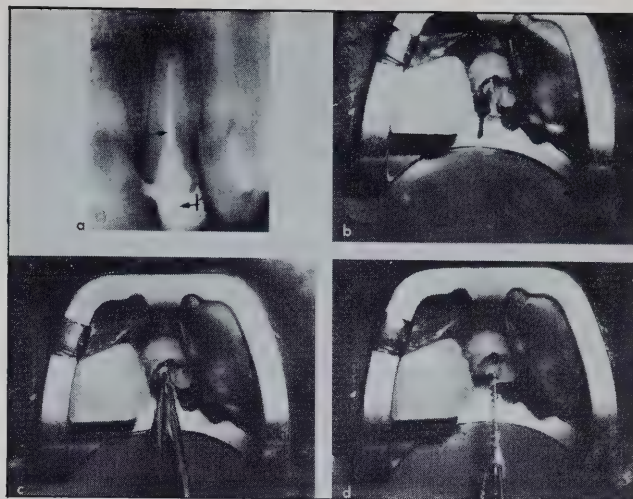


Fig. 6. (a) failed root canal treatment. Tooth restored with dowel. Retreatment indicated, (t) = threads, (h) = head; (b) dowel isolated; (c) dowel grasped with hemostat; (d) dowel removed, therefore canal can be negotiated.

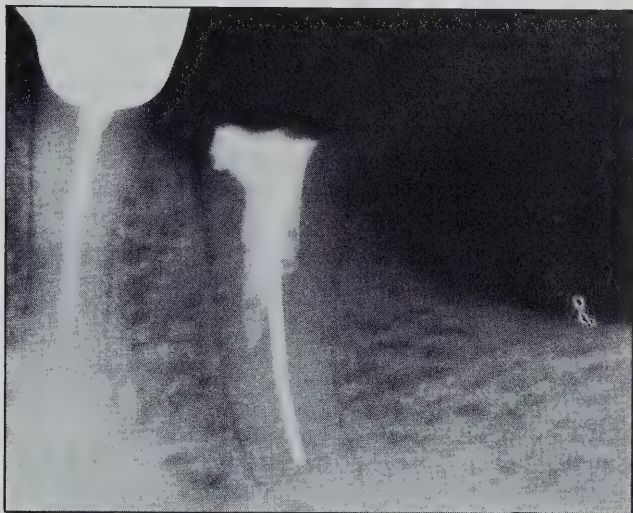


Fig. 7. Clinical failure of tapered threaded dowel luted with a composite resin: crown fractured due to reliance on dowel alone to resist masticatory forces; threaded portion of dowel remains in canal.

5. DOWEL CONFIGURATION

Dowels employed in restoring endodontically treated teeth are either cast or prefabricated, with a tapered or parallel body and a smooth, serrated or threaded surface.¹⁶ These properties affect the retention, strength, stress distribution patterns of dowels, tooth reinforcement and fracture patterns of roots. These interrelationships should be considered when selecting a dowel.

6. DOWEL DESIGN and RETENTION

Under tensile loads, threaded screw-in type dowels are most retentive, with the parallel (Kurer Anchor System) configuration being more so than the tapered (Dentatus; Obturation Screw).^{14,15,17} Parallel, serrated dowels

(Whaledent) are more retentive than parallel, smooth-sided ones, and tapering, smooth dowels are the least retentive (**Table II**). Retention can be increased by increasing the circumference, but if more retention is required, the dowel should be made longer — not wider,^{12,16,18} thereby, root dentine thickness is maintained. An optimum dowel length is 9-11 mm from the cemento-enamel junction. However, for teeth with short roots, threaded, parallel dowels should be considered. With regard to length, Stern and Hirschfield¹⁹ reported that the dowel should extend down the root to the middle of the remaining bone support. They suggested that this would be a more practical rule, as opposed to the often cited dowel length being half the root length, two-third the root, or equal in length to the clinical crown.

Reumping et al¹⁵ suggested the use of anti-rotational features (such as auxiliary pins or grooves) to aid in retention and to resist dislodgement of the dowel when subjected to torsional forces. If auxiliary pins are employed, caution should be exercised as the use of "screw-in" pins produces craze lines which may precipitate root fractures.²⁰

Retention of dowels depends more upon physical configuration than the cementing medium.^{15,17,21} Colley et al²² recommended that smooth-surface dowels be scored or roughened prior to cementation in order to increase the retention of the system.

7. DOWEL DESIGN and STRENGTH

Parallel, stainless steel dowels, either threaded or serrated, appear to be the most resistant to distortion. Greenfeld¹³ noted weakness in a stainless steel, tapered, threaded dowel (Obturation Screw) luted with composite resin. Clinically and *in vitro*, the "head" separated from the "threaded" portion of the dowel (**Figs. 7 and 8**). Durney and Rosen²³ noted similar fractures as well as stripping of the threads in another tapered, threaded dowel (Dentatus). Newburg and Pameijer²⁴ showed that a



Fig. 8. *In vitro* failure of tapered threaded dowel luted with composite simulates clinical failure (Fig. 7). (Compressive force exerted 45° to long axis of tooth at junction of incisal and middle 1/3 of crown — no crown chamfer). (a) acrylic resin block, (b) tooth, (c) threaded portion of dowel, (d) failed crown, core and dowel head.

dowel and core comprised completely of composite was too weak to be employed. Cast gold dowels have been found to distort under applied loads.^{25,26}

8. DOWEL DESIGN and STRESS DISTRIBUTION

Ideally, functional stress should be distributed throughout the length of the dowel to the root so that as much tooth structure as possible can absorb the load. Studies by Standlee et al¹² and Henry²⁷ have proved that stresses are transmitted along the length of the dowels, and thus the dowels should be placed parallel to the long axis of the root.

During cementation, it was shown that all dowels can be placed with minor stresses imparted to the tooth. However, the parallel dowels should be vented to minimize the hydrostatic back pressure. Threaded dowels (Kurer Anchor System) which utilize a "tap" to pre-thread the

TABLE II

RETENTIVENESS of DOWELS with REGARD to DOWEL CONFIGURATION		
	POST CONFIGURATION	EXAMPLE
MOST RETENTIVE ↓ LEAST RETENTIVE	Parallel threaded Tapering threaded Parallel serrated Parallel smooth-sided Tapering smooth-sided	Kurer Crown Saver* Dentatus,** Obturation Screw†† Parapost (Whaledent)† Stainless steel wire Gold castings
* Kurer Anchor System — Kurer Manchester England ** Dentatus — Stockholm, Sweden † Whaledent International New York U.S.A. †† Obturation Screw — Union Broach N.Y. U.S.A.		

space, can be used safely if the tap is removed after a 720° revolution in order to clean dentinal debris.^{12,23} If the tap is not used properly, high order stresses are generated and this could facilitate root fractures.

During function, parallel dowels distribute forces most evenly. However, forces are concentrated at the apical level of the dowel. Tapered dowels generate a stress pattern which is likened to a wedging effect. Threaded dowels, at all lengths, generate the highest stress levels.

Henry²⁷ found less stress concentration when residual coronal dentine was utilized as part of the core. Kantor and Pines²⁸ also recommended the incorporation of well-supported coronal dentine, if possible.

The quoted studies suggest that a parallel vented dowel system which incorporates remaining coronal dentine in the core, generates minimal stresses during cementation and function and distributes these stresses adequately. However, the exception is in teeth with short roots where maximum retention is required. Parallel threaded dowels are often used in these cases and although they generate the highest stress levels, they provide the best distribution of these stresses.

9. DOWELS and TOOTH REINFORCEMENT

Endodontically treated teeth with intact crowns other than an access opening, are not strengthened by dowels.^{2,25,29,30} However, if the crowns have been altered by caries, restorative procedures or trauma, then dowels may be necessary for retention of the restoration, particularly if a full crown is the treatment of choice.

Trabert et al³¹ studied tooth reinforcement with and without the use of dowels. Their results suggest that dowels do strengthen teeth. However, the applied load was an impact force which is encountered during traumatic occurrences and not with normal mastication. Thus, the study is not relevant with regard to a clinical situation. Kantor and Pines,²⁸ however, did simulate occlusal loads on single-rooted teeth, and also reported that dowels strengthen teeth. However, Eshelman³² reports that their conclusions were biased by manipulation of the test sample.

In general, the available data suggest that dowels are not necessary for the reinforcement of teeth and in fact, they weaken teeth as a result of thinning of the root dentine. Furthermore, Bravin²⁹ and Kantor and Pines²⁸ indicated that teeth restored with dowels fractured more apically (Figs. 4 and 9) than those restored without dowels (Fig. 2). In the latter situation, the teeth are often salvageable, but not so if dowels are employed.

10. DOWELS and REMAINING DENTINE THICKNESS

The remaining dentine thickness is perhaps the most important concern for tooth strength. Bravin²⁹ found a direct correlation between resistance to fracture and remaining root dentine. Trabert et al³¹ suggest using as

narrow a dowel as possible. Caputo and Standlee¹⁶ suggest that all types of pins should be surrounded by 1 mm of sound dentine, and this must hold true for dowels as well. Abou-Rass³³ thus measured the remaining dentine thickness in roots of molars at the 4 mm and 7 mm levels from the canal orifice, following dowel space preparation with sizes 2, 3 and 4 Peeso reamers. He found that palatal roots of maxillary molars had sufficient root thickness to satisfy the criteria of Caputo and Standlee but the buccal roots did not. The root dentine of distal roots of mandibular 1 molars was often narrower than the 1 mm requirement. Tilk et al³⁴ also studied remaining dentine thickness following dowel space preparation. Dowel selection was based upon the contention that dowel width should be one-third of the width of the root. However, in mandibular anteriors, dentinal walls of 0.3 mm in thickness were often observed. This is insufficient remaining dentine, and as dowels distribute occlusal loads apically, root fractures can readily occur in these teeth (Fig. 9).

Another consideration is the "hour-glass" shaped root often noted in mandibular molars and maxillary first bicusps. Caution must be exercised when preparing dowel spaces and placing the dowels, otherwise vertical fractures or "stripping" perforations will result (Figs. 9 and 10).

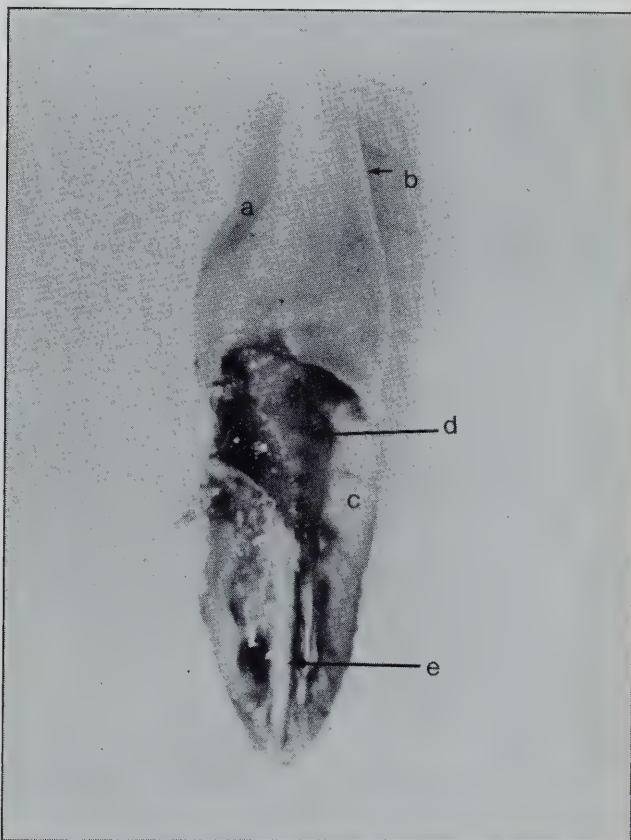


Fig. 9. Vertical fracture of tooth root associated with tapered threaded dowel luted with composite resin. Arrows indicate: (a) composite resin in access opening; (b) intact enamel; (c) tooth root; (d) dowel with composite resin; and (e) gutta percha (2 canals).

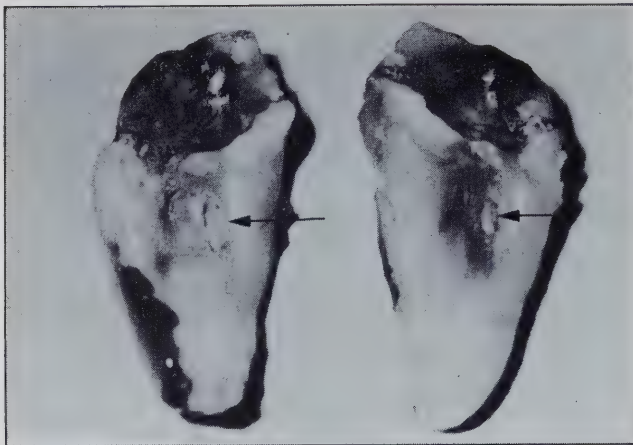


Fig. 10. "Stripping" (arrow) of roots of mandibular molar due to "hour-glass" shaped anatomy and oversized dowel space preparation.

11. DOWELS and CORROSION

Rud and Omnell³⁵ have discussed root fractures with regard to corrosion of posts made of dissimilar metals and the resultant corrosion products. The question remains — did the post corrode with subsequent root fracture, or did root fracture occur first with subsequent corrosion of the post? As it has been observed clinically, it would seem unwise to select a post predisposed to corrosion and corrosion products which may manifest in root fractures.

INDICATIONS for DOWELS

There are only three situations in which dowels are necessary: the first is where teeth are severely broken down. Newburg and Pameijer²⁴ studied the restoration of these teeth and found that cores retained by both a dowel and two pins were better able to resist applied loads than cores retained by a single dowel alone. Cemented non-threaded pins are recommended.⁶

A second indication for the use of dowels is in a tooth which has endodontic treatment performed through an existing crown. If it was known that the remaining coronal tooth structure beneath the crown was intact and that the crown had a chamfer extending 1 — 2 mm onto root dentine, then a dowel would not be necessary. However, these factors are usually obscured and therefore it is recommended that a dowel be employed to provide retention of a core and thereby ensure adequate resistance to masticatory loads.

A third indication for a dowel is to splint coronal and apical root segments. In the case of a horizontal root fracture where the coronal portion has extreme mobility, sometimes a dowel can be used to splint the fractured segments and thereby stabilize the mobile coronal tooth structure. Massive resorptive defects in the coronal half of the roots may dictate the use of dowels to distribute functional loads and to splint coronal and apical segments of the tooth.

CONTRAINDICATIONS for DOWELS

Dowels should not be used in teeth with narrow, tortuous or curved roots. In short-rooted teeth, the parallel-threaded dowels will provide adequate retention. However, these dowels are often too wide and thus reduce the root dentine significantly. This may result in root fracture, and therefore the use of cemented pins should be considered to gain adequate core retention.^{24,25} Teeth with a conservative endodontic access opening and otherwise intact crown, do not require dowels²⁹ unless they are to be prepared for full crown restorations.

SUMMARY and CONCLUSIONS

The ideal dowel is:

1. Parallel — to distribute masticatory loads most evenly
2. 9 - 11 mm in length from the CEJ, or long enough to encompass half of the alveolar bone support of the root
3. Vented — to decrease stress during cementation
4. Serrated for optimal retention
5. Strong enough to resist fracture during manipulation and function
6. Easily placed
7. Removable
8. Relatively inexpensive.

The restoration of endodontically treated teeth presents a multifactorial problem. In certain situations, a dowel may not be necessary,² and an "ideal dowel" may not be appropriate. There are advantages and disadvantages to the various dowel designs. No matter which dowel is selected, it becomes part of the total restoration which must provide cuspal protection. The final restoration must maintain the integrity and health of the tooth and periodontium. Ultimately, it is the clinician's responsibility to employ a restorative technique with which he is most comfortable, which satisfies his objectives and is based upon sound principles.

In conclusion, the following are guidelines for selection and use of dowels:

1. Dowels alone are insufficiently strong to provide adequate resistance to masticatory loads. The final restoration must be fabricated and placed so as to satisfy this requirement.
2. Dowels can be used where they are necessary to retain a core/buildup.
3. Dowels should be placed when endodontic treatment is considered or anticipated to be successful.
4. Dowels placed parallel to the long axis of the tooth root distribute stress along the tooth root. Parallel posts distribute the stress most evenly.
5. Dowels, which are designed so that removal of well-supported coronal tooth structure is required for their placement, should be avoided.
6. Dowels which are readily distorted when stresses are applied, should be avoided.

7. Dowels made of dissimilar metals should be avoided in order to prevent possibilities of corrosion.
8. The need for at least 1 mm of root dentine thickness may dictate the shape of the dowel to be selected.
9. Short-rooted teeth may require a parallel, threaded dowel for maximum retention.
10. Smooth surface dowels should be scored or roughened in order to increase retention.
11. Optimum retention is achieved by a dowel that extends 7 to 11 mm from the cemento-enamel junction, but a better criterion for post length is, perhaps, that the post length should be such as to incorporate one half of the supporting alveolar bone.
12. All luting agents, if used as specified by the manufacturer, are adequately retentive.
13. The use of a dowel in restoring endodontically treated teeth does not guarantee success of the restoration, and may in fact, predispose the tooth to fracture.

The authors wish to thank Dr. Pierre Dow, associate professor and chairman of the Endodontic Section, Department of Restorative Dentistry, University of British Columbia, for the encouragement and motivation which he provided during the preparation of this paper; and Ms. Freda Hopper and Jacqui Martin for the many hours they spent in preparation of this manuscript for publication.

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REFERENCES

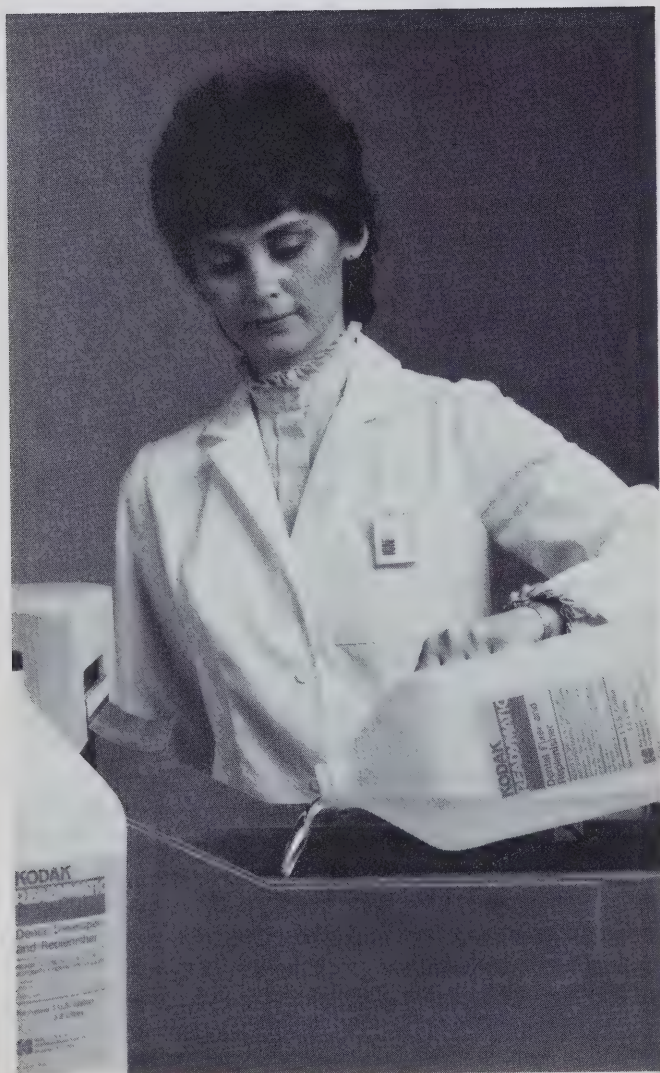
1. Helfer, A.R., Melnick, S. and Schilder, H. Determination of the moisture content of vital and pulpless teeth. *J Oral Surg* 34:661, 1972.
2. Ross, I.F. Fracture susceptibility of endodontically treated teeth. *J Endod* 6:560, 1980.
3. Definition of dowel. *J. Endod* Vol. 7, p. G10 (Special Issue) March 1981.
4. Sapone, John and Lorenki, Stanley F. An endodontic-prosthodontic approach to internal tooth reinforcement. *J Prosth Dent* 45:164, 1981.
5. Brynholf, Ingrid. A histological and roentgenological study of the periapical region of human upper incisors. *Odont Rev* 18 (suppl. 11): 1, 1967.
6. Kerekes, K. and Tronstad, Leif. Long term results of endodontic treatment performed with a standardized technique. *J Endod* 5:83, 1979.
7. Bourgeois, Donald S. and Lemon, Donald R. Dowel space preparation and apical leakage. *J Endod* 7:66, 1981.
8. Neagley, R.L. The effect of dowel preparation on the apical seal of endodontically treated teeth. *Oral Surg* 28:739, 1960.
9. Schnell, F.J. Effect of immediate dowel space preparation on the apical seal of endodontically filled teeth. *Oral Surg* 45:470, 1978.
10. Allison, David A., Michelich, Robert J. and Walton, Richard E. The influence of master cone adaptation on the quality of the apical seal. *J Endod* 7:61, 1981.
11. Kwan, Edward H. and Harrington, Gerald W. The effects of immediate post preparation on the apical seal. *J Endod* 7:325, 1981.
12. Standlee, J.P., Caputo, A.A., Collard, E. et al. Analysis of stress distribution by endodontic posts. *Oral Surg* 33:953, 1972.
13. Greenfeld, R.S. A study of Two Dowel Reinforced Crown Build Up Systems. University of Oregon Health Sciences Centre, 1980 (unpublished).
14. Kurer, Grant. Factors influencing dowel retention. *J Prosth Dent* 38:5, 1977.
15. Ruemping, Dale R., Lund, Melvin R and Schnell, Richard J. Retention of dowels subjected to tensile and torsional forces. *J Prosth Dent* 41:159, 1979.
16. Caputo, A.A. and Standlee Jon P. Pins and posts — why, when and how. *DCNA* 20:299, 1976.
17. Hanson, E.C. and Caputo, A.A. Cementing mediums and retentive characteristics of dowels. *J Prosth Dent* 32:551, 1974.
18. Johnson, J.K. and Sakumura, J.S. Dowel form and tensile force. *J. Prosth Dent* 40:645, 1978.
19. Stern H. and Hirshfeld, Z. Principles for preparing endodontically treated teeth for dowel and core restorations. *J Prosth Dent* 30:162, 1973.
20. Dilts, W.E., Welk, D.A., Laswell, H.R. et al. Crazing of tooth structure associated with placement of pins. *JADA* 81:387, 1970.
21. Standlee, J.P., Caputo, A.A. and Hanson, E.C. Retention of endodontic dowels: Effects of cement, dowel length, diameter and design. *J Prosth Dent* 39:401, 1978.
22. Colley, I.T., Hampson, E.L. and Lehman, M.L. Retention of post crowns. *Br Dent J* 124:63, 1968.
23. Durney, E.C. and Rosen, H. Root fractures as a complication of post design and insertion. *J Op Dent* 2:3:89, 1977.
24. Newburg, Richard E. and Pameijer, Cornelius H. Retentive properties of post and core systems. *J Prosth Dent* 30:636, 1976.
25. Lovdahl, P. and Nichols, J. Pin retained amalgam cores vs cast gold dowel cores. *J Prosth Dent* 38: 5 Nov. 1977.
26. Moll, Jose, F.P., Howe, Donald F. and Savare, Carl W. Cast gold post and core and pin retained composite resin bases: a comparative study in strength. *J Prosth Dent* 40:5, Dec 1978.
27. Henry, P.J. Photoelastic analysis of post and core restorations. *Aust Dent J* 22:157, 1977.
28. Kantor, M.E. and Pines, M.S. A comparative study of restorative techniques of pulpless teeth. *J. Prosth Dent* 38:405, 1977.
29. Bravin, R.V. Post reinforcement tested — the functional stress analysis of post reinforcement. *Calif Dent J* 4:66 1976.
30. Guzy, G.E. and Nichols, Jack I. In vitro comparison of intact endodontically treated teeth with or without endo post reinforcement. *J Prosth Dent* 42:39, 1979.
31. Trabert K.C., Caputo, A.A. and Abou-Rass, M. Tooth Fracture — a comparison of endodontic and restorative treatments. *J Endod* 4:341, 1978.
32. Eshelman, E.G. The resistance of endodontically reinforced teeth to fracture forces. Thesis. University of Missouri, Kansas City, 1980.
33. Abou-Rass, Marwan. Personal communication.
34. Tilk, Mary Ann, Lommel, T.J. and Gerstein H. A study of mandibular maxillary root widths to determine dowel size. *J Endod* 5:71, 1979..
35. Rud, Jorgen and Omnell, Karl-Ake. Root fractures due to corrosion. *Scand Dent J* 78:397, 1970.

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Root resorption following impact injuries

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This article is designed to give clinical examples of internal and external root resorption appearing subsequent to impact injury.

Internal resorption may affect either the crown or root structure of the tooth. The direct cause of internal resorption is unknown. However, factors such as trauma, bruxism, restorations and pulpotomy procedures may act as triggering agents.¹⁻⁵

Internal resorption occurs as a result of vascular changes within the pulp, resulting in destruction of the dental hard tissue. Grossman¹ attributes it to osteoclastic activity. The process of resorption may develop rapidly or very slowly and intermittently with repair following resorption. Ingle² describes how tissue resembling both dentine and bone is deposited during a lull in resorption. If destruction of dentine is massive, the bone-like tissue tends to be arranged in random trabeculae.

Frank⁶ emphasizes the importance of immediate treatment of internal resorption as soon as it is diagnosed. Detection is usually achieved radiographically due to the relative asymptomatic nature of the disease process. Treatment consists of the thorough removal of the offending tissue; profuse bleeding during a removal is a result of the large amounts of granulation tissue present.¹ Following cleansing, an adequate seal of gutta percha is necessary, and usually achieved most effectively through a warm gutta percha technique.

External root resorption is a condition which begins in the periodontal connective tissue rather than the pulp,² and its cause in a clinically detectable form is not entirely known. However, it may be a result of occlusal trauma, orthodontic tooth movement, certain cysts or tumours, and may occur following radiation therapy;³ certain bleaching techniques have also been implicated.⁷ According to Andreasen⁸ in his follow-up study of luxated permanent teeth, if inflammatory resorption occurs as a result of trauma, it is usually observable within 2-5 months after injury and always within one year.

The lesion can progress to the degree that it perforates the pulp tissue, and treatment of external resorption

Dans cet article, on trouvera des exemples de résorptions radiculaires internes et externes qui apparaissent à la suite d'une blessure causée par un choc.

usually requires surgical intervention to seal the resorptive defect, if access to the area is possible.

Four cases are presented, which show internal and external resorption in the root following impact injuries.

CASE 1

A 26-year-old man received incisal fractures when his cuspid and lateral were hit by a stone. He was referred to our office when he developed symptoms of an abscessing tooth.

A fairly large area of radiolucency about the apex of the lateral is shown in **Figure 1**. It also shows the beginning of the area of root resorption on the mesiolingual of the root. At the time, as can happen, it went unnoticed, and endodontia was performed. Fortunately, the referring dentist decided to wait six months before restoring the crown.

Figure 2 shows the condition of the root and surrounding tissue at the six-month recall. The periapical tissue has

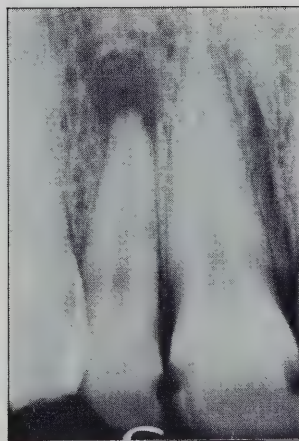


Fig. 1. Periapical radiolucency and beginning of external resorption of the mesiolingual wall is evident.

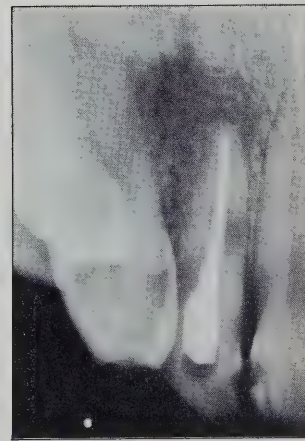


Fig. 2. The apical area has healed but a large area of external resorption is present six months later.

healed completely but the external root resorption has progressed and the destruction of the tooth hard tissue is extensive.

Using the "buccal object rule",⁹ it was determined that the resorptive area was on the mesiolingual, which would complicate surgical correction. It was decided to extract the lateral and replace it with a bridge which would automatically repair the cuspid. **Figure 3** and **4** confirm the position and extent of the destruction within a six-month period.

This case is shown to emphasize the importance of a very close examination of the root following any impact injury. Too often one's attention is focused upon the immediate periapical problem and secondary complications are overlooked.

CASE 2

The patient, a 22-year-old woman, fractured the incisal edges of both centrals in a car accident. Because of other injuries, she was not seen in the dental office until a few months after the accident. The area of internal resorption in the left central is shown in **Figure 5**. The right central appears normal and both responded normally to vitality tests. **Figure 6** shows the root canal filling at the time of completion. The right central appears normal. The repaired crowns and massive internal resorption in the right central four years later are shown in **Figure 7**. The six-month recall x-ray had shown no visible change in the pulpal outline, according to the referring dentist, and he had not seen the patient until she developed symptoms in the right central four years later.

CASE 3

A large area of resorption six months after an accidental blow, in which the patient lost the upper right central, is shown in **Figure 8**. The referring dentist had replaced it with an excellent bridge.

CASE 4

Figure 9 shows extensive resorption and ankylosis commonly seen following the total evulsion and replantation of an anterior tooth. The patient was referred for evaluation five years after the accident, at which time this radiograph was taken. Incidentally, the tooth remained *in situ* for several more years despite the resorption and rather dubious root canal filling.

SUMMARY

Four cases of root resorption have been presented. Examples of rapid resorption are shown in **Cases 1** and **3**; and **Cases 2** and **4** show examples where the resorption was delayed or relatively slow.

The objective of presenting these cases is to re-emphasize:

1. The desirability of delaying the construction of

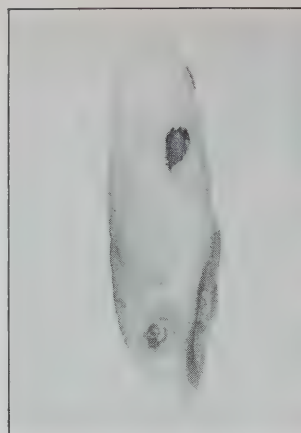


Fig. 3. Extracted tooth shows area of resorption.

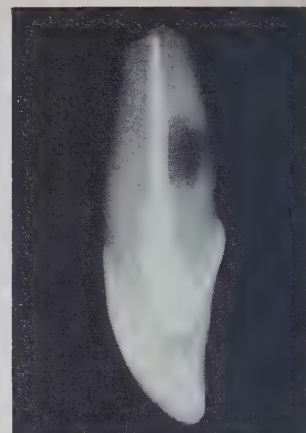


Fig. 4. Radiograph of extracted tooth showing extent of resorption.

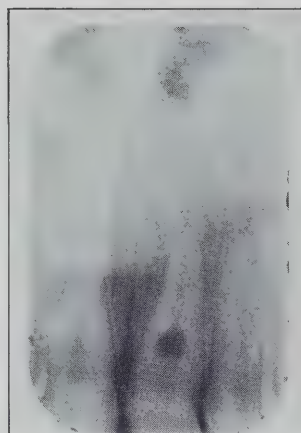


Fig. 5. Internal resorption immediately after impact injury to left central.

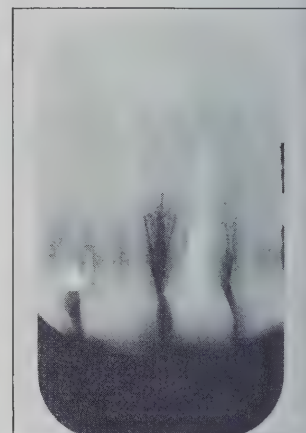


Fig. 6. Postoperative radiograph of endodontically treated tooth. Right central appears normal.

"permanent" restorations for a period of at least six months after endodontic treatment;

2. The importance of advising the patient of the remote possibility of resorption after impact injuries, especially if restorations are done immediately. Fortunately, the percentage of cases of post-traumatic resorption is very small.

One other form of postoperative resorption is not shown but is worthy of mention, and that is resorption of a traumatized tooth after bleaching.⁷

Acknowledgement is made to **Dr. Pierre Dow**, University of British Columbia, Faculty of Dentistry, who drew these two points to the attention of the viewing audience on the Knowledge TV Network in his continuing education course on endodontics.

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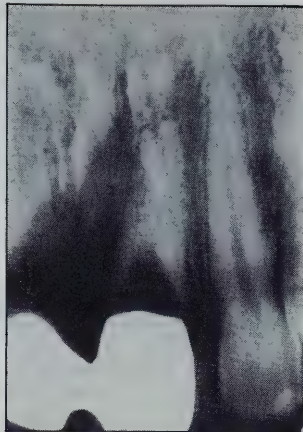
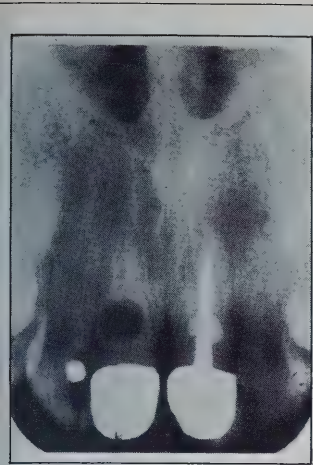


Fig. 7. Massive internal resorption of right central four years after impact injury. Left central is stable.

Fig. 8. Massive internal and external resorption six months after impact injury and bridge construction.

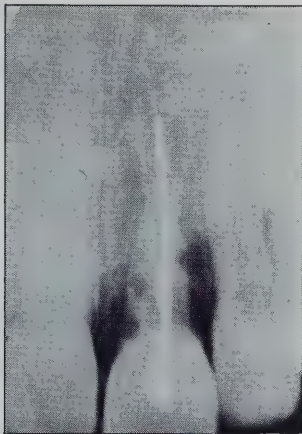


Fig. 9. Resorption and ankylosis five years after replantation.

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REFERENCES

1. Grossman, L.I. *Endodontic Practice*. Ed. 8. Philadelphia, Lea and Febiger, 1974, p. 58.
2. Ingle, J.I. *Endodontics*. Philadelphia, Lea and Febiger, 1973, pp. 339-345.
3. Bhaskar, S.N. *Synopsis of Oral Pathology*. St. Louis, Mosby, 1969, pp. 152-153.
4. Nishida, M. et al. Multiple internal resorption in deciduous teeth. *J Osaka U Dent School* 17:97, 1977.
5. Saunders, I.D.F. Idiopathic internal resorption. *Br Dent J* 135:498, 1973.
6. Frank, A.L. Resorption, perforations, and fractures. *Dent Clin N Amer* 18:465, 1974.
7. Harrington, G.W. and Natkin, E. External resorption associated with bleaching of pulpless teeth. *J Endodont* 5:344, 1979.
8. Andreasen, J.O. Luxation of permanent teeth due to trauma: a clinical and radiographic follow-up study of 189 injured teeth. *Scand J Dent Res* 78:273, 1979.
9. Richards, A.G. The buccal object rule. *Dent Radiography Photography* 53:37, 1980.

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PARTICIPACTION

Histiocytose X.

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INTRODUCTION

L'histiocytose X est une maladie du système réticulo-histiocytaire d'étiologie encore mal définie; l'évolution peut-être favorable, chronique ou fatale. Elle se traduit par une prolifération de cellules réticulaires plus au moins étendue à divers organes.

Les formes que peuvent revêtir l'histiocytose X sont multiples. Trois de ces variations: la maladie de Letterer-Siwe, la maladie de Hand-Schüller-Christian et le granulome éosinophilique, sont à tel point ressemblantes que Lichtenstein¹, en 1953, proposa de les relier dans un même ensemble.

Depuis la plupart des auteurs incluent ces trois formes dans un même contexte.

ETIOLOGIE

L'origine des histiocytoses est encore mal définie. Cependant, plusieurs hypothèses, qui éclairent en partie le cheminement qui ont amené ces conditions, ont été proposées.

Une de ces hypothèses inclurait un facteur génétique. Une autre, ferait état d'un dérèglement du métabolisme portant sur l'élaboration et le stockage des phospholipides.

Une étiologie tumorale a été suggérée en observant le comportement clinique et histologique consécutif à une biopsie antitumorale.

Une étio-pathogénie, soit allergique, soit dysimmunitaire a été proposée; le système immunitaire produirait une protéine anormale au lieu d'anticorps.

Par ailleurs, certains organismes, tel que le bacille Paracolon Arizona, ont été mis en évidence; on a également noté dans les biopsies pulmonaires et osseuses des corps d'inclusion intra histiocytaires d'origine virale.

De ces observations, il découle que la théorie étio-pathogénique, la plus probable actuellement, serait d'origine infectieuse.

INTRODUCTION

Histiocytosis X is a disease affecting the reticulo-endothelial system and its etiology is still not properly defined. Its development can be favourable, chronic or fatal. It appears as a proliferation of reticulum cells affecting different organs more or less.

Histiocytosis X can have numerous forms. Three of them: the Letterer-Siwe disease, the Hand-Schüller-Christian syndrome and the eosinophilic granuloma are so much alike that in 1953 Lichtenstein¹ suggested to put them together.

Most authors have done so since.

Description des trois formes de l'histiocytose X Letterer-Siwe

La maladie de Letterer-Siwe est une histiocytose, disséminée, de forme aigüe (7). Elle atteint le plus souvent le nourrisson, avant la deuxième année (2). Elle est caractérisée, cliniquement, par des lésions cutanées quasi constantes (3), par de la fièvre, par une altération de l'état général et par une atteinte plus ou moins grande de certains viscères (hépatosplénomégalie, intumescences ganglionnaires et atteintes pulmonaires). Du point de vue biologique, le taux des lipides est normal. L'étude de l'hémostase est également normale, à l'exception du taux des plaquettes qui est parfois abaissée. L'anémie est fréquente (4). Histologiquement, on observe une prolifération réticulo-histiocytaire diffuse sans surcharge lipidique (5).

Hand-Schüller-Christian

L'histiocytose disséminée, de forme est représentée par la maladie de Hand-Schüller-Christian (7). Cette maladie survient habituellement après deux ans. Quatre signes la caractérise: une exophtalmie, un diabète insipide, des lacunes crâniennes et des troubles de développement physique et génital (8-9). Les lésions cutanées ne sont pas

rares. On signale aussi des manifestations viscérales pulmonaires (toux quinteuse, polypnée et signes de cyanose) (10), hépato-spléniques, ganglionnaires et otomastoïdiennes.

Du point de vue histologique on constate des granulomes histiocytaires avec cellules lipidiques et spumeuses (11). Les anomalies biologiques sont rares (la lipémie, la cholestérolémie sont variables, quoique souvent normales). Une anémie n'est pas rare.

Granulome éosinophilique:

L'histiocytose localisée est représentée, chez l'enfant, par le granulome éosinophilique de l'os et, chez l'adulte, par des localisations pulmonaires (7). Cliniquement, il se manifeste comme une tumeur osseuse ayant radiologiquement l'aspect d'une lacune. Le plus souvent la lésion est unique; l'état général n'est aucunement altéré. Ses localisations électives sont les os plats et surtout les os du crâne. Les adénopathies sont souvent satellites aux lésions osseuses. Les lésions bucco-dentaires sont souvent initiales à des granulomes unis ou multifocaux du maxillaire inférieur s'associant à une stomatite et à des phénomènes de surinfection qui rendent parfois difficile le diagnostic (12). On signale parfois une discrète éosinophilie. Le taux des lipides et le bilan phosphocalcique sont normaux.

Anatomo-Pathologie

Pour établir un diagnostic final il est essentiel de recourir à la biopsie de la lésion. Histologiquement, il s'agit d'une prolifération histiocytaire. Les cellules histiocytaires sont caractérisées par leur grande taille. Un cytoplasme abondant, faiblement acidophile, contient des granulations PAS positives. Il y a présence de nombreuses vacuoles et parfois des inclusions d'allure phagocytaire. Le noyau est irrégulier et revêt souvent une forme bizarre et tourmentée. Les cellules plurinucléées ne sont pas rares. La surcharge de la cellule en ester de cholestérol lui donne souvent la coloration jaune orangé (17).

Signes buccaux

Les manifestations orales sont, dans quelques cas, les premiers signes de la maladie. Alors le dentiste pourrait bien être le premier à voir un patient porteur d'une histiocytose X. Les lésions buccales sont souvent asymptomatiques quoique quelques patients éprouvent une certaine douleur gingivale de même qu'une sensibilité osseuse. Ces lésions sont parfois accompagnées de mal de gorge, d'halitose et de sensation de mauvais goût dans la bouche. Dans les cas de Letterer-Siwe surtout, les lésions péri-dentaires sont importantes. Les gencives et les muqueuses ulcérées et hémorragiques entraînent une hypermobilité dentaire et parfois même un déplacement des dents.

L'aspect radiologique de la lésion simule une lésion péri-dentaire. La destruction de l'os est sévère donnant une apparence de dents flottantes (18). On peut voir des zones radiotranslucides avec une ligne de contour bien définie. Les lésions simples ou multiples, d'apparence kystiques, peuvent atteindre un diamètre d'un à quatre centimètres (19).

Diagnostic différentiel

Il existe plusieurs diagnostics différentiels des lésions mandibulaires de l'histiocytose X. Nous pouvons citer entre autres le kyste folliculaire ou inflammatoire, l'infection périapicale ou l'ostéomyélite chronique.

Les périodontoses prépubertaires sont associées le plus souvent à des conditions systématiques telles l'histiocytose, l'hypersurrénalisme, le diabète, la sclérodermie et l'anémie à cellules falciformes.

Les tumeurs malignes primaires de la mandibule sont rares. Le sarcome d'Ewing révélerait une apparence à la radiographie de lamelles circonscrites ressemblant à la pelure de l'oignon. Le myélome tend à éroder l'apex des dents avant de les déplacer. L'absence de la protéine de Bence-Jones dans les urines nous aide à éliminer le diagnostic de myélome multiple. L'apparence radiologique de l'ostéosarcome ressemble à une étoile, avec une zone centrale entourée de prolongements perpendiculaires. (20)

La dysplasie fibreuse se présente souvent comme une lésion monoloculaire subpériostéale avec, parfois, quelques zones sclérosées soufflant le périoste adjacent à la lésion. La neurofibromatose apparaît comme une lésion radiotranslucide longeant le canal dentaire inférieur. L'améloblastome présente une apparence en grappe de raisin. S'il y a des zones de calcification dans la lésion, on peut songer à l'odontome. Tandis que le cémentome fait corps avec la racine des dents (21).

Traitement

L'évolution capricieuse, souvent déroutante, des histiocytoses X rend difficile l'appréciation de l'effet réel des nombreuses médications proposées.

Le granulome éosinophilique isolé relève de la chirurgie et de la radiothérapie. Pour la maladie de Hand-Schüller-Christian comme pour la maladie de Letterer-Siwe, la corticothérapie et les antimétaboliques donnent des résultats parfois remarquables sinon toujours durables. L'introduction récente de la vincalécoblastine, représente un progrès encourageant (13) (14,15).

Histoires de cas

lo cas: Un jeune haïtien âgé de six ans, vivant au Canada depuis peu se présente, pour la première fois, à l'hôpital Ste-Justine en novembre 1976. Le but de cette visite était de signaler une lésion asymptomatique du cuir chevelu, persistante depuis l'âge de 4 ans. Dès lors, une radiographie crânienne a été prise et on a prescrit un shampoing-crème qui n'apporta aucune amélioration. La radiographie révéla des lésions ostéolytiques multiples du crâne avec une opacité de la mastoïde droite (**fig. 1**). L'enfant fut admis en clinique d'oncologie quelques semaines plus tard pour des examens plus approfondis. On nota une anémie ferriprive et des adénopathies. Les poumons sont apparus normaux. L'examen clinique endobuccal complété par des radiographies dentaires permit de constater une perte du support alvéolaire (**fig. 2**) avec exfoliation prématurée

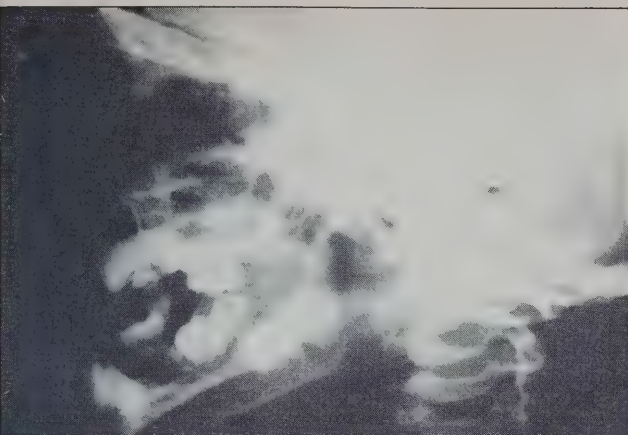


Figure 1. Opacité de la mastoïde.

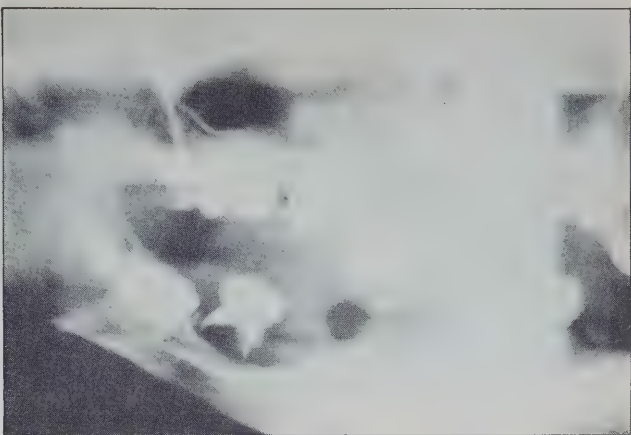


Figure 2. Absence du support alvéolaire.

de certaines dents primaires (**fig. 3**). L'examen histologique de la biopsie cutanée révéla un épiderme légèrement kératinisé infiltré, au niveau du chorion, par des cellules à cytoplasme abondant contenant un noyau vésiculeux parfois en forme de croissant. Ces cellules bien individualisées étaient séparées par un liquide d'œdème. Dans les couches conjonctives profondes, on observait des travées de lymphocytes et quelques cellules éosinophiliques donnant l'aspect d'une lésion granulomateuse du type Hand-Schuller-Christian.

2^o cas: Une jeune patiente âgée de 17 mois, accompagnée de ses parents, est amenée à l'hôpital Ste-Justine en juin 1974. Elle présente une dermite séborrhéique résistante aux traitements habituels. L'examen radiologique démontra dès lors, des images pulmonaires très atypiques. La recherche pour une étiologie par un micro-organisme a été négative. La biopsie de la lésion révéla une histiocytose de type Letterer-Siwe. Étant donnée l'évolution naturelle de ce type de maladie, les responsables de la clinique d'oncologie suggérèrent de commencer les traitements avec les stéroïdes et des cytotoxiques de type prednisone et vincristine.

En mars 1977, la même patiente est dirigée au service dentaire pour traitement de lésions ulcératives dans la bouche. On nota au disto-buccal de la 2^o molaire primaire inférieure droite, une ulcération de couleur rougeâtre de 1½ cm de diamètre. Le centre de l'ulcération nous laissait entrevoir la cuspide mésio-buccale de la 1^{re} molaire de la dentition permanente (**fig. 4**). Il y avait aussi un début de résorption osseuse au niveau de la 2^o molaire primaire inférieure droite (#85).

Une progression de la résorption dans la région de la #75 est constatée en mai 1977, ainsi que le début d'une nouvelle lésion au buccal de la #85. On recommande l'emploi du "Water Pick" pour maintenir une hygiène convenable. En janvier 1981, les lésions semblaient s'être stabilisées (**fig. 5**).

3^o cas: En 1977 un enfant de trois ans et demi (3½) est référé à l'hôpital Ste-Justine pour une lésion bour-



Fig. 3. Exfoliation prématurée de dents primaires. A noter l'agénésie des prémolaires.

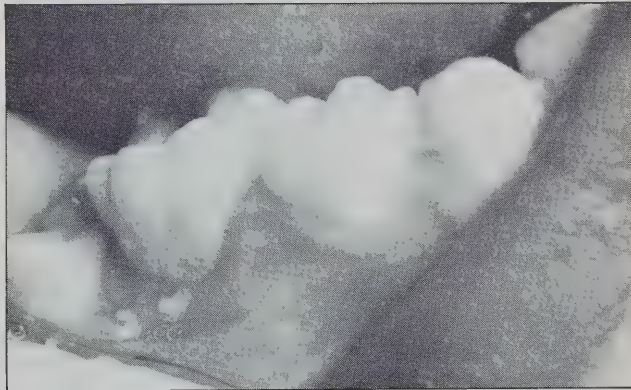


Figure 4. Lésion de la gencive au buccal de la deuxième molaire inférieure primaire.

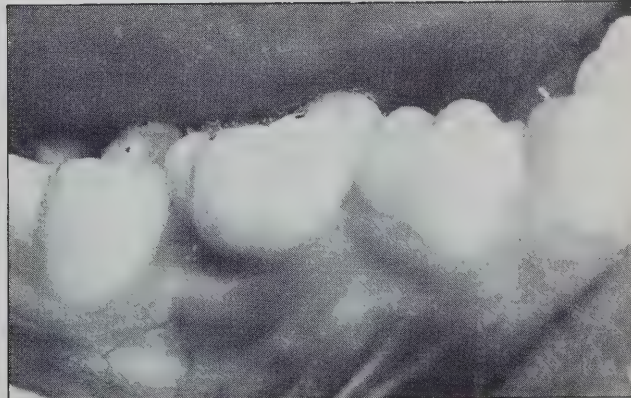


Figure 5. Janvier 1981. Stabilisation apparente de la lésion.

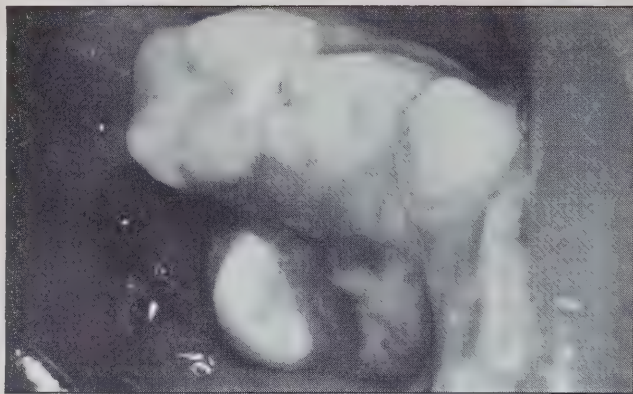


Figure 6. Lésion nécrotique dans la région gauche de la mandibule. Le bourgeon d'une prémolaire est visible à travers l'érosion.



Figure 7. Radiographie panoramique démontrant la grandeur de la lésion. À noter le déplacement du bourgeon de la 2^{ème} prémolaire.

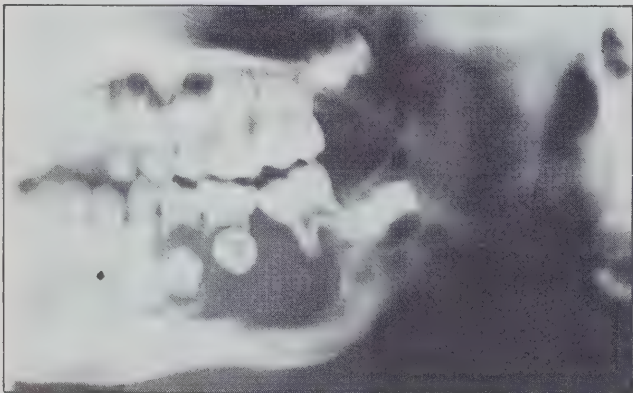


Figure 8. Après le traitement à la chimiothérapie, la raréfaction osseuse est encore très considérable.

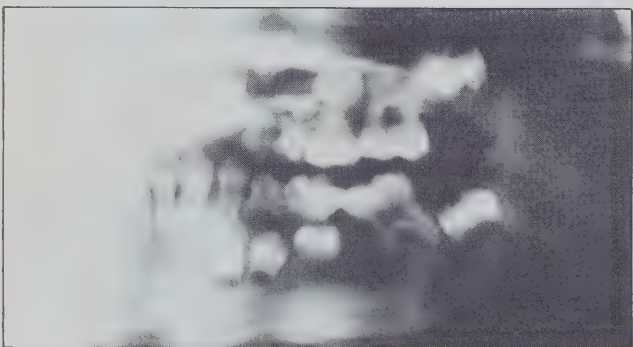


Figure 9. La lésion au mois d'août 1980.

geonnante du palais dur et pour ce qui semblait être une oto-mastoïdite chronique.

Après des examens approfondis, un diagnostic d'histiocytose X a été émis.

La chimiothérapie, proposée et appliquée à ce temps, a suffi pour guérir les lésions présentes.

En décembre 1979, l'enfant est revu à la clinique d'oncologie où on observe, radiographiquement, une lésion lytique au côté gauche de la mandibule de même qu'une lésion osseuse au niveau des vertèbres D-7 et D-8 ainsi qu'une atteinte de l'os occipital.

Par la suite, l'enfant est référé à la clinique dentaire pour un examen buccal.

L'examen clinique révèle une lésion, de même qu'une hypermobilité des dents dans la région gauche de la mandibule. Cette lésion était non douloureuse et de nature nécrotique (fig. 6). La radiographie panoramique (fig. 7) révèle l'extension de la lésion.

Le traitement à la chimiothérapie fut repris mais sans résultats apparents pour la lésion buccale.

La radiographie panoramique prise après ce traitement révèle encore une raréfaction osseuse très importante (fig. 8).

Par la suite on décida de traiter la lésion mandibulaire par la radiothérapie.

En début d'avril 1980, la lésion buccale semblait stable et les traitements dentaires ont été entrepris. Parmi ceux-ci, il y avait les extractions des dents primaires, de la molaire permanente et de la 2^o prémolaire de la région, à cause de la trop grande résorption alvéolaire exposant les racines dentaires. En août la lésion avait diminué considérablement et (fig. 9), peu de temps après, la lésion ostéolytique semblait être complètement disparue (fig. 10).

PRONOSTIC et CONCLUSION

Le diagnostic de chacun des cas fut assez délicat. Comme nous pouvons le constater, chacun d'eux ne présentait qu'une partie des symptômes qui caractérisent classiquement la maladie. Le diagnostic différentiel approprié s'avère d'une très grande importance dans le cheminement vers le diagnostic final et adéquat de l'histiocytose X.

Dans toutes les formes de maladies d'histiocytose X, le pronostic dépend de l'extension et du degré de sévérité des

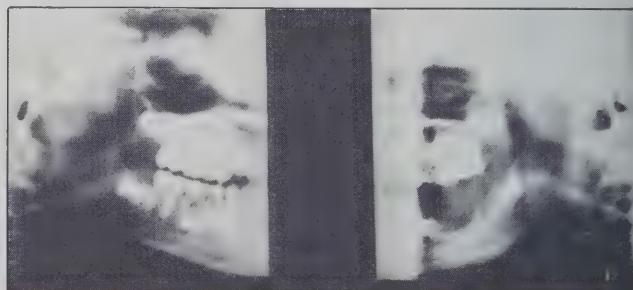


Figure 10. Radiographie Post-chirurgie.

Tableau représentatif des trois maladies Histiocytaires

	Letterer-Siwe	Hand-Schuller-Christian	Granulome Eosinophilique
Forme	Aigue	Chronique(Disseminée)	Chronique (Localisée)
Âge	Avant 2 ans	Seconde Enfance	Enfant (os) Adulte (pulmonaire)
Histologie	Prolifération Reticulo-Histiocytaire Diffuse sans Surgarge Lipidiques	Granulome Histiocytaire Avec cellules Lipidiques	Discrète Eosinophilie
Bouche	+	+	+
Os	+	+	+
Poumons	Possible	+	Rare
Yeux	—	Exophtalmie	—
Diabète	+	+	—
Pronostic	Le plus grave	Defavorable 6 ans	Bon

lésions. L'évolution des malades atteints de Letterer-Siwe pourrait être mortelle du fait des complications infectueuses, d'insuffisance cardiaque ou d'asphyxie. La sévérité de la maladie de Hand-Schuller-Christian s'avère être plus importante surtout lorsqu'elle apparaît chez le sujet avant l'âge de 6 ans. Une évolution favorable de la maladie peut être espérée dans les cas de formes pures du granulome éosinophilsique (6).

Département de santé buccale,
Faculté de médecine dentaire
Université de Montréal,
Montréal, Qué., Canada, H3C 3T9

RÉFÉRENCES

1. Lichtenstein, L.: Histiocytosis X: integration of eosinophilic granuloma of bone, "Letterer-Siwe disease" and "Hand-Schuller-Christian disease" as related manifestations of a single nosologic entity. *A.M.A. Arch. Path.* (Chicago), 56:84, 1953.
2. Varon, P.: Étude de quelques cas de maladie de Letterer-Siwe, de Hand-Schuller-Christian, granulome éosinophile (maladie granulomateuse histiocytaire), *Thèse*, Paris, 1961.
3. Paulson, D.H., Schuster, D.S., et Farber, E.M.: Histiocytosis X *Post grad. Med.* 33:115, 1963.
4. Guibert, C.: Les éléments du pronostic de l'histiocytose X (maladie de Letterer-Siwe, de Hand-Schuller-Christian, granulome éosinophile). Étude fondée sur l'évolution contrôlée de 43 cas. *Thèse*, Paris, 1962.
5. Cancilla, P.A., Lahey, M.E., et Carnes, W.H.: Cutaneous lesions of Letterer-Siwe disease. Electron microscopic study. *Cancer*, 20:1986, 1967.
6. Nezelof, C., et Guibert, C.: L'histiocytose X. Nosologie et pronostic. Étude fondée sur l'évolution contrôlée de 52 observations personnelles. *Arch. Franc. Pédiat.* 20:1063, 1963.
7. Lichtenstein, L.: Histiocytosis X (eosinophilic granuloma of bone, Letterer-Siwe disease, Hand-Schuller-Christian

disease). Further observations of pathological and clinical importance. *J. Bone Joint Surg.* 46:76, 1964.

8. Cunningham, J.: Hand-Schuller-Kay-Christian disease and Kay's triad. *N. England J. Med.* 282:1325, 1970.
9. Lucaya, J.: Histiocytosis X. *Am. J. Dis. Child.* 121:289, 1971.
10. Turiaf, J., Basset, F.: Deux nouveaux cas d'histiocytose X à localisations pulmonaires et osseuses avec présence dans les lésions granulomateuses de particules tubulaires intracytoplasmiques suggérant une structure virale. *Bull. Soc. Med. Hôp. Paris.* 117:373, 1966.
11. Tusques, J., et Pradal, G.: Analyse tridimensionnelle des inclusions rencontrées dans les histiocytes de l'histiocytose X, en microscopie électronique. Comparaison avec les inclusions de cellules de Langerhans. *J. Microscop.* 89:113-120, 1969.
12. Lefebvre, J., et Chaumont, P.: Le devenir du granulome éosinophile chez l'enfant. *J. Radiol. Electrol.* 39:705, 1958.
13. Beir, F., Thatcher, L., et Lahey, M.: Treatment of reticuloendotheliosis with vinblastine sulfate: preliminary report. *J. Pediat.* 63:1087, 1963.
14. Child, S., et Kennedy, R.: Reticuloendotheliosis of children; treatment with roentgen rays. *Radiol.* 57:653, 1951.
15. Lahey, M.: Prognosis in reticuloendotheliosis in children. *J. Pediat.* 60:664, 1962.
16. Guerin C., et Friez, L.: L'histiocytose "X" a-t-elle une étiologie? *Rev. Stomat.* (Paris) 69:240, Avr-Mai, 1968.
17. Uzzan, D., Collet, A., Normand, C., Desbordes, J., et Leblanc J.: Étude clinique et par microscopie électronique de deux observations de poumons en rayon de miel. *J. Franc. Méd. Chir. Thor.* 21:609, 1967.
18. Blevins, C., et al.: Oral and dental manifestations of histiocytosis X. *Oral Surg., Oral Med., and Oral Path.* 12:473, 1959.
19. Keusch, K.D., Poole, C.A., et King, D.R.: The significance of "floating teeth" in children. *Radiolog.* 86:215, 1966.
20. Trodahl, J.N., and Allman, R.M.: R.P.C. of the month from *A.F.I.P. Radiol.* 93:921-929, October 1969.
21. Jackson, M.J., and Seibert, W.: Histiocytosis X is it in your differential diagnosis? *J. of Dent. for Children*, 36-41, Jan-Feb 1981.

GUIDE À L'INTENTION DES COLLABORATEURS

Le Journal de l'Association dentaire canadienne invite tous ceux qui le désirent à lui soumettre, pour fins de publication, des articles inédits, des rapports cliniques ou des comptes rendus sur des ouvrages faisant état des progrès en dentisterie. Seuls sont acceptés les textes soumis exclusivement au Journal de l'ADC.

ARTICLES SCIENTIFIQUES: Ils ne doivent pas compter plus de 2,500 mots et s'accompagner du moins grand nombre possible d'illustrations, de photographies, de schémas, de tables et de graphiques. Le Journal considère qu'une vingtaine de références constituent une moyenne acceptable.

RAPPORTS MAJEURS: Plus longs que les articles scientifiques, ces rapports font état du diagnostic et du traitement des maladies dentaires, des études portant sur l'enseignement et sur les recherches effectuées en laboratoire ou en clinique, ainsi que des enquêtes détaillées touchant à la dentisterie ou à des sujets connexes.

RAPPORTS CLINIQUES: Plus brefs, ces rapports sont des histoires de cas ou des observations portant sur des cas cliniques. Pour ces textes, les références et le nombre des illustrations doivent être limités.

POINTS DE VUE: Les points de vue sont laissés à la discrétion du rédacteur en chef. De plus, ils ne doivent pas compter plus de 800 mots et être sérieusement documentés.

NOMBRE DE MOTS: On compte environ 250 mots par page de format 8½ x 11 et tapée à double interligne.

MANUSCRITS: Tout collaborateur doit soumettre trois (3) copies de son article (l'original et deux copies) au rédacteur en chef, Journal de l'Association dentaire canadienne, 1815, promenade Alta Vista, Ottawa, Ontario K1G 3Y6. De même, il doit soumettre graphiques, photographies, diagrammes et tables en trois exemplaires.

Chaque article doit être accompagné d'une lettre de présentation et d'un résumé. Les résumés seront traduits en anglais. Chaque manuscrit doit comporter une adresse postale complète pour fins de correspondance.

Le rédacteur en chef se réserve le droit de corriger les manuscrits pour les rendre clairs, brefs et conformes au style du Journal. Avant la publication de l'article, l'auteur correspondant recevra une copie du texte corrigé pour fins de vérification. Il recevra également les premières épreuves, mais il pourra y corriger seulement les fautes de vocabulaire et les erreurs typographiques. Tous les auteurs, sans exception, disposeront d'un délai de 24 heures pour retourner les épreuves.

Le Journal demande aux auteurs d'indiquer leurs titres professionnels ainsi que les postes qu'ils occupent et de joindre à leurs articles **des photographies d'eux-mêmes** pour la publication.

REMARQUE: Les manuscrits doivent être tapés à double interligne sur des feuilles de format 8½ x 11 et sur un seul côté des feuilles. On doit joindre un résumé à chaque article.

TITRES: Ils doivent être appropriés au contenu des articles, brefs et utiles pour l'index. Le rédacteur pourra abréger les titres trop longs.

LÉGENDES: Les légendes de toutes les illustrations doivent être présentées ensemble sur une feuille à part. Les légendes des photomicrographies doivent indiquer le grossissement et la couleur.

RÉFÉRENCES: Les références doivent se rapporter au texte et être numérotées en conséquence. Les références à des journaux ou à des revues doivent spécifier le nom de l'auteur, le titre de l'article, le nom du journal ou de la revue en abrégé, le numéro du volume, les numéros des première et dernière pages de l'article et l'année de publication:

- 1 Hechter, F.J. Symmetry and dental arch form of orthodontically treated patients. JCDA 44:173-184, 1978.

Pour les monographies, il faut indiquer le nom de l'auteur, le titre, le lieu de publication, le nom de l'éditeur et l'année de publication:

- 2 Kilpatrick, H.C. Work simplification in dentistry, 2^e éd. Philadelphia, Saunders, 1964.

ILLUSTRATIONS: Elles doivent être de bonne qualité et seuls les tables, schémas et diagrammes dessinés de façon professionnelle seront acceptés. Les diapositives ou les négatifs en couleurs seront rejetés de même que les radiographies sur pellicule. Les radiographies doivent être en noir et blanc et sur papier au fini glacé.

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ALBERTA — Edmonton. Associate dentist required for office in Edmonton. CDA Box No. 2186.

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BRITISH COLUMBIA — Langley. Wanted sincere dentist to buy into busy office located in a large shopping centre 40 km from Vancouver 604-530-4011 or write: Dentist, 5511 208 St., Langley B.C. V3A 2K4.

ALBERTA — Hygienist required. Dental clinic located in community of 8,000 population one hour away from Edmonton, Alberta, requires permanent full-time dental hygienist. Excellent atmosphere and remuneration. Reply: Hygienist P.O. Box 4006, Edmonton Alberta, T6E 4S8.

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ONTARIO — London. Locum wanted. Jan. 2/84 to end of April 84. Contact: Dr. P. Thornton 72 Grand Ave., London, Ont., N6C 1L7 or call 519-434-1469.

ONTARIO — Ottawa. Energetic dentist recently graduated from UBC, currently doing hospital residency plans to move to Ottawa in July 1984. Interested in locum or associateship in general dentistry in Ottawa area. Please reply to CDA Box No. 2192.

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Announcements/Avis

1983 CANADA

November/novembre

The 25th Anniversary Symposium entitled "Will Basic Research Influence Clinical Dentistry in the Future?", Faculty of Dentistry, University of Manitoba, Winnipeg, Manitoba. November 18-19 1983. Contact Dean, Dr. A. Schwartz, Faculty of Dentistry, University of Manitoba, 780 Bannatyne Ave., Room D-113, Winnipeg, Man. R3E 0W3. Phone 204-786-3631.

Toronto Academy of Dentistry Annual Winter Clinic, Royal York Hotel, Toronto Ont. November 24, 1983. Contact: Academy of Dentistry, 234 St George St. Toronto Ont. M5R 2P2, Telephone 416-967-5649.

International

December/décembre

NIH Consensus Development Conference on Dental Sealants in the Prevention of Tooth Decay, Bethesda, Maryland, December 5-7, 1983. ACRF Amphitheatre, Warren Grant Magnuson Clinical Centre, National Institute of Health. Sponsored by the National Institute of Dental Research and the NIH Office of National Applications of Research. Contact: Peter Murphy, Prospect Associates, Suite 401, 2115 East Jefferson St., Rockville, Maryland, 20852, (301) 468-6555.

January/janvier 1984

The Centre of Pediatric Dentistry is organizing the "Second Dominican Congress of Pediatric Dentistry" in Santo Domingo, January 27-29 1984. Congress themes are Prevention and Clinical Aspects. Fees are \$50 U.S. Contact: Dr. Franklin Garcia-Godoy, Centre de Odontologie Pédiatrique, P.O. Box 2753 Santo Domingo, Dominican Republic, Telephone 809-689-4277 afternoons and evenings.

International Dental Seminars announces the 10th International Alpine Dental Conference, Hotel Annapurna, Courchevel 1850, France, January 14-28, 1984. Contact: International Dental Seminars, 24 Cadogan Square, London SW1X 0JP England.

Miami Winter Meeting, Fontainebleu Hilton, Miami Beach Florida, February 2-4 1984. This is a program for international clinicians. Contact: the East Coast District Dental Society, 420 S. Dixie Highway, Suite 2-E, Coral Gables, Florida, 33146. 305-667-3647.

American Academy of Occlusodontia will hold its 28th annual meeting at the Essex Inn, Chicago Illinois, Feb. 18, 1984. Featured speaker will be Dr. H.T. Shillingburg. Contact: Dr. Jefferson Brock, 9631 Gross Point Rd., Skokie, Illinois, 60076.

Chicago Dental Society, 119th Midwinter Meeting, Chicago, Ill. February 19-22, 1984. Conrad Hilton Hotel. Contact: Chicago Dental Society, 30 North Michigan Ave. Chicago Ill. 60602, 312-726-4076 for information.

The sixth in a series of Arab health exhibitions, "Arab Health '84", will be held at the Jeddah Expo Centre, Jeddah, Saudi Arabia, February 19-23, 1984. Contact either: Virginia Kern, Fairs and Exhibitions Ltd., 51 Doughty Street, London, WC1N 2Lb, England, Tel: 01-831-8981 or Al-Harithy Company for Exhibitions Ltd., P.O. Box 6249 Jeddah, Saudi Arabia, Tel: 6658194/5.

March/mars 1984

La Commission d'Études Biomatérielles créée par le Centre Français de la Corrosion (Cefracor) organise à Strasbourg Germany au Palais de Conseil de l'Europe sur le thème "Corrosion et dégradation des biomatériaux et leurs incidences cliniques." les 5-7 Mars 1984. Pour tous renseignements s'adresser au Secrétariat du CEFACOR, 28 rue Saint Dominique 75 07 PARIS. Tél: 705.10.73 ou 705.39.26.

The First International Congress on dentistry, medical law and ethics will be held in Sedom, Dead Sea, Israel, March 13-18 1984. Contact: Dr. S. Perlmutter, Chairman, Organizing Committee, First International Congress on Dentistry, Medical Law and Ethics, P.O. Box 394, Tel Aviv 61003 Israel.

Dental Horizons Inc. will be giving a seminar entitled "Effective Practice Management Techniques: The Ideal Practice" at New York University, March 16 and March 23 1984. Contact: Dr. L. Zucker, 3201 Grand Concourse, Bronx, New York, 10468, 212-933-5510.

International Dental Seminars announces the 11th International Alpine Dental Conference, Hotel Annapurna, Courchevel 1850, France. March 17-24, 1984. Contact: International Dental Seminars,

24 Cadogan Square, London SW1X 0JP England.

Advanced Paedodontics Course 338, The British Council, London/Newcastle Upon Tyne, March 18-30, 1984. Contact: The British Council, c/o The British High Commission, 80 Elgin St., Ottawa, Ont. K1P 5K7.

April/avril 1984

Dental Horizons Inc will be presenting a seminar entitled "Effective Practice Management Techniques: The Ideal Practice" Paradise Island, The Bahamas, April 4-8, 1984. Contact: Dr. L. Zucker, 3201 Grand Concourse, Bronx, New York, 10468, 212-933-5510 for information.

Canadian Academy of Restorative Dentistry annual meeting, Montreal, Quebec, April 6-7 1984. Contact: Dr. Berl Mendel, # 216-5757 Decelles Ave. Montreal, Que., H3S 2C3, 514-342-2549.

Co-joint Convention of The Canadian Dental Association and Les Journées Dentaire du Québec, Montreal, Quebec, April 8-12 1984. Palais des Congrès, Montreal. Contact: Dr. Michel Jahjah, General Chairman, 3565 rue Berri, Bureau 200, Montreal, Que. H2L 4G3, 514-842-9112.

The American Association of Dental Consultants fifth annual spring workshop, Windsor, Ontario, Hilton International, April 28-29, 1984. Contact: Dr. Ed. Mazak, c/o Green Shield, 285 Giles Blvd. E., P.O. Box 1606, Windsor, Ont., N9A 6W1, 519-255-1133.

May/mai 1984

La Société Française de Parodontologie will hold VIIIèmes Journées Françaises Internationales de Parodontologie, Arles, France, le 5-7 mai, 1984. Renseignement: Société Française de Parodontologie, 57 rue Amsterdam 75008 Paris, France.

Ontario Dental Association 117th Annual Spring Meeting, Toronto, Ontario, May 13-16, 1984, The Sheraton Centre. Contact: Mrs. A. M. Durham, 234 St. George St. Toronto, Ont. M5R 2P1, 416-922-3900 for information.

June/juin 1984

International Association of Oral Pathologists general meeting, to be held in Noordwijkerhout, the Netherlands, June 4-7 1984. Contact: Congress Secretaria,

2nd Meeting of the International Association of Oral Pathologists, c/o Mrs. R. Mooijen, AZVU Pathologisch Instituut, De Boelelaan 1117, MB Amsterdam, the Netherlands.

Dental Horizons Inc. are presenting a seminar entitled "Effective Practice Management Techniques: The Ideal Practice" Einstein, New York, June 8, 1984. Contact: Dr. L. Zucker, 3201 Grand Concourse, Bronx, New York, 10468, 212-933-5510.

The International Congress of Oral Implantologists World Congress VII for Oral Implantology, Munich, West Germany, June 21-24, 1984. Munich Sheraton Hotel. Contact: Clifford J. Kirschner, Executive Director, The International Congress of Oral Implantologists, P.O. Box 2277, Grand Central Station, New York, NY. 10163, 201-783-6300.

Florida Dental Association 1984 Florida Dental Congress, Buena Vista Palace, Lake Buena Vista, Orlando, Florida, June 23-25, 1984. Contact: Florida Dental Association, 3021 Swann Ave. Tampa Fla. 33609, 813-877-7597.

July/juillet 1984

Ninth Annual Congress of Dietetics, Toronto, Ontario, July 1-6, 1984. Hilton Harbour Castle Hotel. Topics covered will be varied. Continuing Education credits will be assessed for ADA and CDA registered dietitians. Contact: Congress Canada, Suite 603, 250 University Ave., Toronto, Ont. 416-591-1498.

August/août 1984

The New Zealand Dental Association is holding its biennial conference, Auckland New Zealand, August 12-17 1984. Contact: Dr. N. P. Ewart, Conference Secretary, P.O. Box 28085 Auckland 5, New Zealand.

72nd Annual World Dental Congress of the FDI, Helsinki, Finland, August 25-31, 1984. Contact FDI '84, Hallitusk 8, SF 00100, Helsinki 10, Finland.

October/octobre 1984

Eighth International Congress of Dental Technicians, Cologne, Germany, October 4-5, 1984. Congress-Centrum Ost of the Cologne Trade Fair Complex. Contact: Messe-und Ausstellungs Ges m.b.h. Koln, Messeplatz, Postfach 210760, D-5000, Koln, 21, Deutz.

Dental Horizons Inc is presenting a seminar entitled "Effective Practice Management Techniques: The Ideal Practice" Bronx New York, Oct. 28, 1984. Contact: Dr. L. Zucker, 3201 Grand Concourse, Bronx, New York, 10468, 212-933-5510.

November/novembre

11th Asian Pacific Dental Congress, Excelsior Hotel, Hong Kong, November 5-10 1984. Contact: Congress Secretariat, International Conference Consultants, 57, Wyndham St. 1st Floor, Central, Hong Kong.

1985+

Second International Conference "Clinical Factors and Mechanisms Influencing Bone Growth", University of California, Los Angeles, January 1985. Abstracts submitted no later than June 30, 1984. Contact: Andrew Dixon or Bernard Sarnat, Dental Research Institute, School of Dentistry, School of Medicine, Centre for Health Sciences, University of California, Los Angeles, (UCLA), Los Angeles, California, 90024.

Canadian Academy of Restorative Dentistry, annual meeting, Ottawa, Ontario, September 27-28, 1985. Contact: Dr. Ed. J. Abrahams, #322-267 O'Connor St., Ottawa Ont., K2P 1V3, 613-236-1671.

Canadian Dental Association 1985 National Convention/l'Association dentaire canadienne, congrés national 1985, Ottawa Ontario, September 29-October 2, 1985.

Scandinavia's largest international trade fair, "Swedental '84" will be held in Stockholm Sweden, November 14-16 1984. Contact Stursberg/Hewitt/ Radley, U.S. Representatives, 6671 Sunset Blvd. Suite 1525, Los Angeles California. 90028, 213-462-6260.

The Indian Dental Association is presenting its 39th annual conference, Bombay India, last week of December 1984. Contact: Dr. L. K. Ghandi, Conference Secretary, 39th IDA Conference, C-56 N.D.S.E. Part-II, New Delhi, 110049.

The 24th Australian Dental Congress will be held in Brisbane Australia May 12-17 1985. The Congress is hosted by the Australian Dental Association. Contact: The Congress Secretariat, P.O. Box 29, Parkville, Vic. Australia, 3052.

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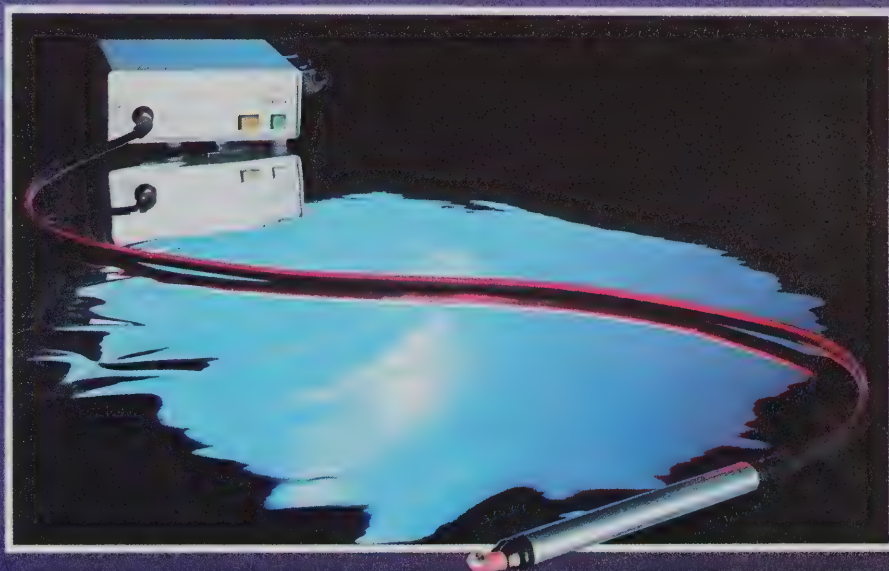
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Dentaire
Canadiennedécembre
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Editorial

- 805 Dr. J. D. R. Grier suggests using auxiliaries in a "public relations" capacity to promote dentistry in general and her own employers practice in particular.

Letters

- 810 Dr. G. Allan Taylor compliments the Journal's scientific editor for statements made on TMJ in the June 1983 edition.

In the News

- 811 **CDA Endorsement.**
CDA Endorses Use of Silver Copper Amalgam as a Restorative Material.
- 812 **CDA-ODQ Conjoint Convention: Celebrate April in Montreal in 1984.**
The scientific, social and spouses programs for the 1984 conjoint CDA-ODQ convention taking place April 8-12 1984 in Montreal, are detailed.
- 814 **Yukon Dental Association: seminar with a difference.**
The Yukon Dental Association held an unusual summer continuing education seminar.
- 816 **Dr. Victor Chatwin retires from the CDA and dentistry.**
Dr. Vic Chatwin, for almost six years CDA's Director of Accreditation, retired from his post and the profession at the end of December.

CDA National Convention

- 819 **All dental interest groups describe CDA national convention as "highly successful."**
CDA's national convention held in Vancouver in September was hailed by those attending as a great success.
- 822 **Dr. Robert N. Hicks installed as CDA president.**
A Vancouver orthodontist and longtime CDA member, Dr. Robert N. Hicks is the new CDA president.

- 823 **Dr. P. Ralph Crawford new CDA president-elect.**
Active in both CDA and the Manitoba Dental Association, Dr. P. Ralph Crawford of Winnipeg is CDA's new president-elect.

- 825 **Future of Dentistry panel: highlights**
A well attended panel discussion at the convention was "The Future of Dentistry".

- 828 **Executive Director's Report**
CDA Executive Director, Hubert Drouin, reports on the 1983 Board of Governor's meeting held in Vancouver prior to the CDA Convention in September.

- 833 **Modern Management concepts: for dental practice: a perspective on management.**
Dr. Harvey A. Strand lectured at the CDA Convention on modern concepts of office management in general, and applied these concepts to a dental practice.

Briefly

- 838 Dental news items from across Canada and around the world are highlighted.

Articles

- 841 **A status report on dental implants.**
Dr. George A. Zarb brings readers up to date on the latest techniques, research and methodology in the field of dental implants.

CDA Resource Centre

- 844 The CDA Library/Resource Centre lists articles available on the subject of periodontal diseases. Also included is a list of new acquisitions in the Library.

Publications

- 846 **Dentofacial deformities: surgical orthodontic correction**
"This book contains a wealth of clinical information and has tremendous merit as an operative procedure manual." A.P. Dags, DDS, Dorth.

- 846 **Atlas of Oral Pathology.**
"The authors have to be applauded for writing clear, concise and informative descriptions which they have visualized with commendable photographs." John Hardie, BDS

- 847 **Human Dentofacial Growth**
"I would recommend that the faculty of our dental schools give this text consideration for use in orthodontic and pedodontic courses" Duncan W. Higgins, DDS.

Scientific

- 866 **Update on the proliferative and migratory behaviour of cells of the periodontium** — D. M. Brunette.

- 867 **The immunopathology of periodontal disease: current theories** — Douglas Deporter.

- 868 **Periodontal Disease: a specific microbial infection** — B.C. McBride.

- 869 **Role of surgery in treatment of periodontal diseases** — B.J. Lahiffe.

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Notice of change of address should be received before the 10th of the month, to become effective the following month.

Subscriptions: All subscriptions payable in advance in Canadian funds in Canada — \$35; United States — \$35; all other — \$38. Subscriptions are for 12 editions, not necessarily conforming with the calendar year.

All statements of opinion and supposed fact are published on the authority of the author who submits them and do not necessarily express the views of the Canadian Dental Association, unless such statements or opinions have been adopted by the Association. The editor reserves the right to edit all copy submitted to the Journal.

ISSN0709 8936

Journal

de l'Association
Dentaire
Canadiennedécembre
1983

Éditorial

- 806** Selon le Dr. J.D. Grier, les auxiliaires dentaire peuvent agir comme des relationnistes pour promouvoir la dentisterie en général et le cabinet de son employeur en particulier.

Actualités

- 849 Services aux membres de l'ADC**
L'ADC agréé les amalgames de cuivre-argent comme matériau de restauration.

- 850 Congrès mixte de l'ADC et de l'ODQ: Avril à Montréal du 8-12 Avril, 1984**
Un aperçu du programme scientifique du programme social et du programme pour les conjoints

- 852 Le Dr Victor Chatwin prend sa retraite de la médecine dentaire et de son poste à l'ADC**
Directeur de l'Agrément depuis presque six ans, le Dr Chatwin prendra sa retraite à la fin de décembre, abandonnant à la fois l'exercice de la profession et son poste à l'ADC.

- 852 Récompense FCRD présentée au Dr. Christopher A. McCulloch**
Au congrès de l'ADC, le Dr. Christopher A. McCulloch, parodontiste de Hamilton (Ontario) a reçu la récompense du FCRD.

- 853 Le Canada et le Pérou rendent hommage à Bob McAllister**
L'ancien président du Lions Club de Azilda, en Ontario, Bob McAllister a été décoré de l'Ordre du Canada et reçu à un dîner offert par l'ambassadeur du Pérou au Canada, pour avoir acheminé de l'équipement dentaire et hospitalier au Pérou.

Congrès de l'ADC

- 854 Tous les groupes intéressés qualifient de 'succès complet' le Congrès de l'ADC.**
De l'avis de tous les intéressés, le Congrès de l'ADC à Vancouver a été un "succès complet."

- 856 Intronisation du Dr. Robert N. Hicks comme président de l'ADC**

Le nouveau président de l'ADC, le Dr. Robert N. Hicks, exerce l'orthodontie à Vancouver.

- 857 Le Dr. William R. Thompson rend hommage aux qualités du Dr. Robert N. Hicks, nouveau président de l'ADC**
Le président sortant, le Dr. William R. Thompson, accueille le Dr. Robert N. Hicks, à son nouveau poste de président de l'ADC, saluant en lui un candidat idéal à cause de son expérience dans le milieu dentaire tant sur la scène nationale que sur la scène provinciale.

- 858 Le Dr. P. Ralph Crawford est le nouveau président élu de l'ADC**
Le nouveau président désigné de l'ADC est le Dr. P.R. Crawford, de Winnipeg. Celui-ci travaille déjà activement pour l'ADC et l'Association dentaire du Manitoba.

- 858 Le Dr. Thorsten Aggerdy, président du FDI, est l'invité d'honneur au congrès de l'ADC**
Le Dr. Thorsten Aggerdy, président de la FDI loue l'ADC pour le rôle qu'elle joue auprès de la FDI.

- 860 Rapport du directeur général sur l'assemblée annuelle 1983 du conseil d'administration.**
Le directeur général de l'ADC, M. Hubert Drouin, présente son rapport à l'occasion de l'Assemblée du Conseil d'administration tenue à Vancouver avant le début du congrès.

- 862 En Bref**
Un tour d'horizon des principales informations dentaires dans le Canada et dans le monde.

- 844 Bibliothèque et centre de documentation de l'ADC.**

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Vol. 49 No. 12
1983
Journal
de l'Association
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Numéro suivant
du Congrès

Articles du
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La direction du Journal ne partage pas nécessairement les opinions qu'expriment ses collaborateurs à moins que l'Association Dentaire Canadienne ne les ait adoptées officiellement.

MARKETING OF DENTAL SERVICES (Try Utilizing Auxiliaries more)

The current trend in dentistry is of more dentists caring for fewer patients and the traditional problem of being able to produce all the services that the consumer requires is being replaced by the problem of finding enough consumers to serve. One key to economic survival in private practice in the years ahead will be the ability of the dental team to market their services.

Success will be dependent on a team approach and auxiliaries, in addition to functioning in their existing roles must act as marketing agents. Marketing is more than just selling, involving the art of understanding the needs and then satisfying those needs in a manner which is fulfilling to both the consumer and the supplier, in this case the dental team.

The auxiliary should be a public relations ambassador for dentistry in general and her own office in particular, even while out of the professional environment. Within the practice there would be a variation in the marketing functions performed, according to the particular auxiliary. All auxiliaries can take a history from a patient, discuss their needs, fears, attitudes and this caring approach can lead to motivation of the patient to accept better and more complete dental care.

Front desk personnel would have a role in case presentation not only in outlining treatment costs, appointment scheduling and insurance coverage but in reinforcing the dentist's treatment recommendations. Regardless of the clinical duties of the dental assistants which vary from

province to province, they should be encouraged to market dentistry while they are working at their regular assignments. They can help to reduce patients' fears by explaining what new techniques are available in pain control and how modern dental visits need not be at all traumatic. Any new treatment modality introduced to the office can be the subject of a few minutes of small talk between procedures or while waiting for such matters as a radiograph to be developed.

The hygienist having been trained in much more than just "tartar mining" should spend a good deal of her time educating the patient about how any current or anticipated future problems within their mouths, can be corrected. Using a large mirror for vision, a tour of the patient's mouth may reveal rough fillings which catch dental floss, or open contacts that permit food impaction. Teeth which are weakened by large restorations or caries, or extraction spaces, will give the hygienist a lead in to mention crown and bridge possibilities.

Auxiliaries have an excellent chance to observe procedures and can present to the patient a different viewpoint from that of the dentist in specific instances. If auxiliaries are actively encouraged to participate in marketing they will derive a sense of achievement, job satisfaction and a feeling of increased responsibility and in many cases prove to be better at it than the "boss".

It goes without saying that compensation and rewards must be accorded to the personnel as incentive for them in this enthusiastic approach to better dentistry.

*James D.R. Grier, DDS, BDS
Victoria, B.C.*

La commercialisation des services dentaires (ayez davantage recours aux auxiliaires)

En médecine dentaire, la tendance actuelle veut que le nombre des dentistes s'accroisse, tandis que diminue celui des patients et, au lieu d'avoir à résoudre, comme jadis, le problème de fournir tous les services que réclament le consommateur, le dentiste doit maintenant trouver assez de consommateurs qui ont recours à ses services. A l'avenir, pour l'équipe dentaire, un moyen de survivre financièrement en pratique privée sera l'aptitude à commercialiser les services qu'elle offre.

Le succès dépendra de la méthode adoptée par l'équipe et les auxiliaires devront, en plus de remplir leur rôle actuel, agir comme agents de commercialisation. La commercialisation ne comprend pas seulement la vente. C'est un art, celui de comprendre les besoins du public et d'y répondre d'une manière qui soit satisfaisante tant pour le fournisseur que pour le consommateur.

Même en dehors de son milieu de travail, l'auxiliaire doit agir comme un agent de relations publiques pour la dentisterie en général et pour son cabinet en particulier. Dans le cabinet même, les fonctions liées à la commercialisation pourront varier suivant les auxiliaires. Cependant, toutes peuvent retracer avec le patient son histoire médicale, discuter ses besoins, ses craintes et ses habitudes. Le patient, voyant qu'on s'intéresse à son cas, sera enclin à mieux accepter le dentiste et à réclamer des soins dentaires plus complets.

Les réceptionnistes peuvent également jouer un rôle non seulement en indiquant le prix des traitements, en fixant les rendez-vous et en précisant les garanties fournies par les régimes d'assurance, mais aussi en appuyant les recommandations du dentiste touchant les traitements. Quant aux assistantes dentaires, outre leurs fonctions cliniques qui varient d'une province à l'autre, on peut les

inciter à promouvoir la dentisterie pendant qu'elles s'acquittent de leurs tâches ordinaires. Ainsi, elles peuvent aider à dissiper les craintes du patient en expliquant qu'on dispose de nouvelles techniques pour réduire la douleur et que les visites chez le dentiste ne doivent pas être nécessairement cause d'angoisses. Toute nouvelle façon de donner un traitement dans le cabinet peut faire l'objet d'une brève conversation entre les diverses procédures ou en attendant le développement d'une radiographie, par exemple.

Formée pour faire plus que détartrer les dents, l'hygiéniste dentaire peut consacrer une bonne part de son temps à faire l'éducation du patient et à le renseigner sur la façon de corriger ou de prévenir des problèmes bucco-dentaires particuliers qu'il peut avoir ou risque d'avoir. A l'aide d'un miroir, on peut montrer au patient que certaines obturations sont rugueuses, par exemple, et qu'elles accrochent la soie dentaire ou offrent des prises aux aliments. Et les dents affaiblies par des restaurations majeures, des caries ou l'extraction des dents voisines peuvent être une occasion pour l'hygiéniste d'expliquer les possibilités offertes par les couronnes et les ponts.

Étant donné qu'elles sont témoins des divers traitements donnés au patient, les auxiliaires peuvent exprimer, dans certains cas, une opinion différente de celle du dentiste. Si les auxiliaires sont incitées à participer à la commercialisation des services, elles auront l'impression de faire quelque chose de concret, leur travail leur semblera plus enrichissant et elles développeront leur sens des responsabilités. Dans plusieurs cas, elles ne révéleront meilleures que leur patron.

Il va sans dire que, pour être encouragé à adopter une attitude enthousiaste envers la dentisterie, le personnel doit obtenir des récompenses et être rémunéré en conséquence.

*James D.R. Grier, DDS, BDS
Victoria, C.-B.*

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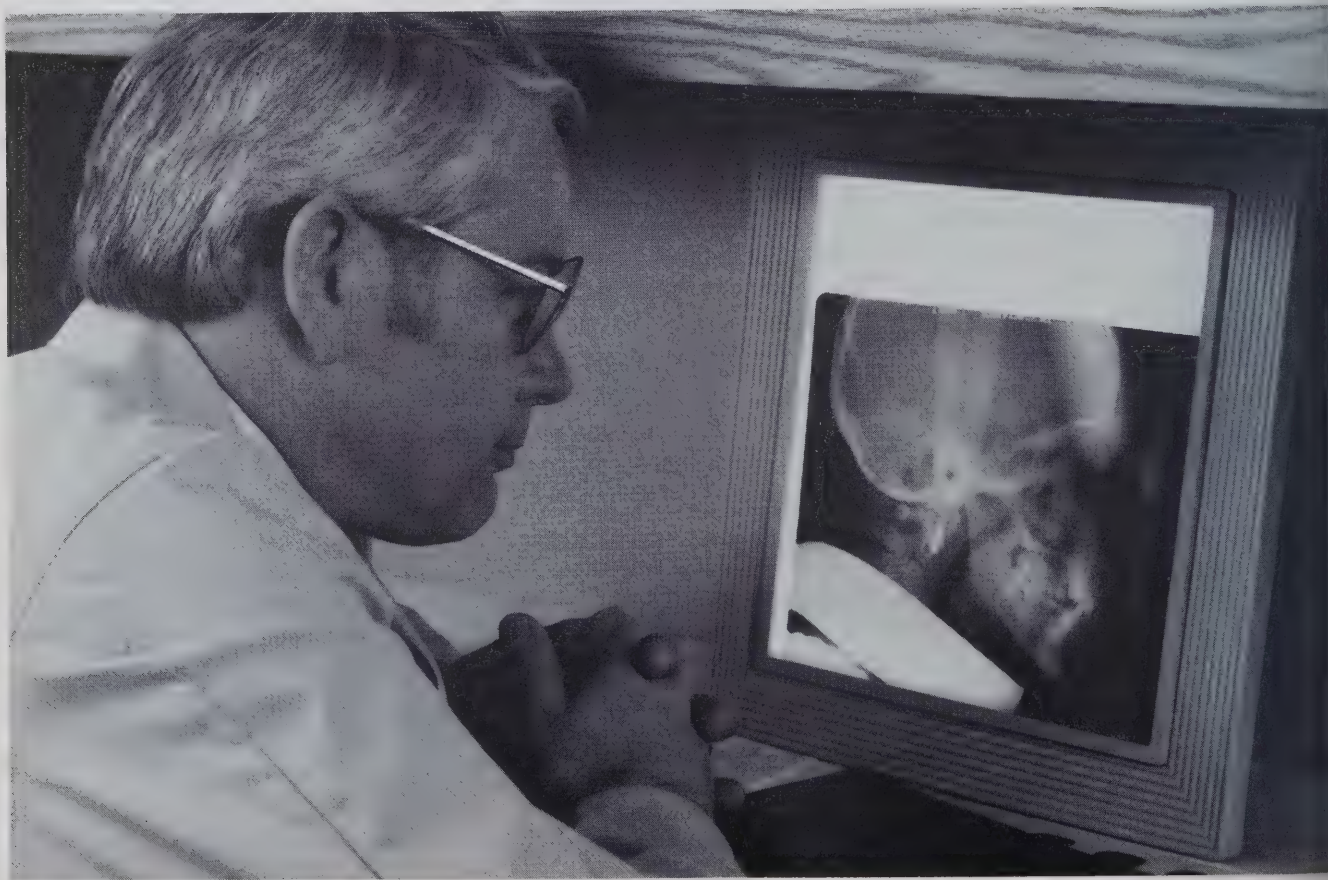
Less exposure and less cost with new Kodak rare earth extraoral products.

Rare earth imaging products—Kodak Lanex screens and Kodak ortho films—have already had major impact on medical radiography. Now they are available to reduce exposure and cost in extraoral dental imaging.

Exposure to patient and staff is reduced four to six times for both panoramic and cephalometric radiography—and the film costs less. Yet the image quality

is comparable with slower combinations. A Kodak Lanex regular screen with Kodak ortho G film gives superb contrast for panoramic work, and the same screen with Kodak ortho L film yields the extended latitude required for soft-tissue imaging in cephalometric radiography. The same combinations are available for special cassettes for use in TMJ radiography.

For details, write for the new Kodak dental x-ray products catalog, Kodak Canada Inc. Health Sciences Markets, 3500 Eglinton Avenue W. Toronto, Ontario, M6M 1V3



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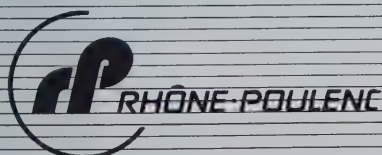
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Letters

Scientific Editor complimented on statement in Journal

I am writing to compliment you on the statement preceding the A.D.A. guidelines for temporomandibular disorders which appeared in the July issue of the Journal.

I have been trying since the early 1970s to come to terms with some of the problems which you so clearly set out in your statement. I have established a referral clinical at the Ottawa Civic Hospital in co-operation with the Dental Department there since about 1970 and since that time the service has grown to the point where I now see in excess of 300 new patients annually. The A.D.A. guidelines are a very gratifying indication of the approach which I have personally taken

in the diagnosis and management of these disorders at the clinic over the past ten years. Needless to say, this approach has often led me to enter into varying degrees of confrontation with members of the dental profession in Ottawa and the Eastern Ontario region. Notwithstanding the disagreements, I still receive a large number of referrals from the dental profession as well as from family physicians and medical specialists.

I have been concerned for some time that the current North American trend towards malpractice action will make an appearance in this area. I say this because patients are currently being subjected to expensive, invasive,

irreversible restorative procedures and I have, for some time, been in the position of trying to defend the practice of my dental colleagues. I am finding this role increasingly difficult to assume and I sincerely hope that the individuals concerned will take the time to read the introductory remarks which appear on page 480 of the July C.D.A. Journal.

*G. Allan Taylor, DDS, MD
FRCS (C)*

*Plastic Reconstructive and Hand
Surgery
Ottawa Civic Hospital,
Ottawa, Ontario*

Canadians honored by American College



(Photo by C. Metcalfe)

Four Canadians were among the 214 awarded Fellowships in the American College of Dentists at an impressive Convocation in Anaheim, California on Saturday, October 1. Three of the Canadian Fellows are pictured above, following the ceremony. They are, left to right; Dr. Alan D. Fee, Edmonton, Alta., (who sponsored Dr. Gordon Thompson); Dr. W. Brock Love, Professor of Prosthodontics, Faculty of Dentistry University of Manitoba, Winnipeg; Dr. Gordon W. Thompson, Dean, Faculty of Dentistry, University of Alberta, Edmonton; Dr. David Peters, St. John's, Newfoundland, Chairman, Board of Trustees, CFDE, and Dr. Peters' sponsor, Dr. Hal Leyland, of Nassau, Bahamas. Dr. Benjamin Sedlezky, of Westmount, Québec, was not available for the photo session.

CDA endorses the use of silver copper amalgam as a restorative material.

The following report on a symposium on "The Use of Mercury and Amalgam in Dentistry" was recently presented at the Board of Governor's annual meeting, just prior to the CDA Convention held in Vancouver B.C. in September.

Practitioners from various parts of Canada have brought to the attention of the Canadian Dental Association concerns expressed by a few members of the general public about possible side effects which may be associated with the use of dental silver amalgam as a restorative material.

An Ad Hoc Committee of the Council on Dental Materials and Devices of the C.D.A. met on May 27, 1983. After a review of the literature and from discussions in the Committee and within the professions, there appears to be a very small number of persons showing probable amalgam sensitivity. The number when accurately documented, is very low compared to the vast number of amalgam restorations that have been placed.

Amalgam has been generally accepted by the dental profession for the past 80 years or so. Although some concerns have been occasionally expressed about its use, such concerns have not been supported by scientific evidence. During the past five years, various laboratory and clinical trials have demonstrated the superior clinical performance and stability of the newer formulations of alloys for amalgam. These improvements are the result of original Canadian research (Innes and Youdelis, 1963) and of the development of improved handling techniques. When a restorative is required, amalgam is still the material of choice for restoring the majority of decayed posterior teeth.

The individual patient is exposed to mercury from a variety of sources

such as industrial pollution, paint, smoking and diet. Exposure from amalgam fillings has not been demonstrated to be greater or more harmful than that arising from other minor background sources. Research and clinical experience has shown that sensitivity to some metals may occasionally be a possible source of a dental patient's problems; mercury is only one of these metals; the amount of mercury absorbed as a result of having an amalgam restoration placed is very small and is less than the amount obtained from certain diets and the environmental effects of modern life.

In the light of present knowledge, the Canadian Dental Association's Council on Dental Materials and Devices agrees with the following statement released by the American Dental Association, "Except in individuals sensitive to mercury, there is no reason why a patient should seek to have amalgam restorations removed." (J. Amer. Dent. Assoc. 106, 519-520, 1983.)

Dentistry must be concerned, however, about keeping to a minimum the absorption of any foreign substances involved in dental treatment. The Canadian Dental Association's Council on Dental Materials and Devices strongly advocates the use of the most corrosion-resistant alloys, the use of the recommended alloy/mercury ratios, the use of rubber dam to control and collect all debris together with the efficient use of high-speed evacuation systems by the dental assistant, and the rigorous implementation of the CDA mercury hygiene recommendations (1979). It should go without saying that the removal of existing amalgam should only be performed with water spray and high-speed evacuation. Cutting amalgam dry has been shown to be a primary source of mercury for both dental personnel and

patients.

Council encourages controlled clinical research studies involving individual patients considered to be sensitive to dental amalgam in order that a sound scientific basis be established for reaction to such restorative materials. Such controlled studies would require an assurance that patients had not swallowed or ingested amalgam debris during placement of any fillings, the age and composition of the filling should be known; and there should be an assurance that the alloy/mercury ratio and the method of placement were acceptable.

The Council on Dental Materials and Devices strongly endorses the principle that clinical treatment of suspected mercury sensitive individuals should not depend solely upon the dentist's diagnosis, but should always include an assessment by a qualified dermatologist or allergy specialist. Testing for metal sensitivity is not a simple matter and does require expert interpretation.

In conclusion, it should be pointed out that no wide spread sensitivity to mercury among dentists and dental personnel, who may be exposed to much higher levels of mercury absorption, has been established. In a sense, the members of the dental profession themselves could be regarded as a comparative test group who have been exposed to low levels of mercury over long periods of time.

The possible hazards to dental personnel arising from exposure to mercury vapour in the dental office have been well documented (Jones et al, 1983) and dentists should ensure that the recommended working procedures are followed to minimize any risk.

Continued on page 829

CDA-ODQ CONVENTION: celebrate April in Montreal April 8-12, 1984

Part of April 1984 should be spent by all Canadian dentists in vibrant Montréal.

By a unique arrangement between the Canadian Dental Association and the Ordre des dentistes du Quebec, the 1984 Convention of both organizations will be held conjointly. According to 1984 CDA-ODQ convention chairman, Dr. Michel Jahjah, the yearly convention of the Ordre des dentistes du Quebec, "Les Journées Dentaires", is always popular and attracts large numbers of dentists, hygienists, assistants and their spouses. When Montreal was chosen as the site for the 1984 convention, the two presidents of the national and provincial bodies agreed to present a conjoint convention.

Dr. Robert N. Hicks, CDA President and Dr. Marc Boucher, President of the ODQ, chose a convention committee with representatives from

both organizations participating, to ensure a truly co-operative and unique 1984 convention.

The committee members are:

Dr. Michel Jahjah,
(general chairman)
Dr. Laval Couture
Dr. Mel Hershenfield
Dr. Denis Laflamme
Ms. Linda Teteruck (CDA liaison)
Mme Christine Hupfer (Secretary)

Ex-officio members of the committee are: Hubert Drouin, executive director of CDA and Dr. Pierre-Yves Lamarche, executive director of ODQ.

The convention, to be held April 8-12 1984, will take place in Montreal's new Palais du Congrès. Prior to the usual three days of scientific sessions, table clinics and social events, there will be two days of limited attendance courses.

Sunday April 8 will feature Dr. Francis Edwards lecturing on "The Marketing of Professional Services." His lecture, given in English, will be available for simultaneous translation into French. Also on that day, in French, Drs. Pierre Duquette and Robert Langlais will give a course entitled "Conférence Clinico-Pathologique."

Monday April 9 will feature an English course on "Predictable Restorative Procedures" by Dr. Alvin J. Fillastre. Dr. Alan Vaillancourt and his associates will lecture on the same day in French on "Journée d'étude en prothèse complète."

The scientific program begins on Wednesday April 10 and features lectures on a variety of subjects in both official languages. The following table gives the scientific program at a glance.

SCIENTIFIC PROGRAM		Programme Scientifique	
Speaker	Subject	Orateur	Sujet
Dr. Gerald Kramer (Boston)*	Periodontics	le Dr. Normand Brien (Montréal)	Prothèse partielle amovible
Dr. Thomas Graber (Illinois)	The Grieve Memorial Lecture (Orthodontics)	le Dr. Richard Taché (Montréal)	Prothèse complète
Dr. Robert Langlais (Texas)	Pathology	le Dr. Peter Vakor (Montréal)	R.C.P.
Dr. Gerald Denehey* (Iowa)	Composite Resins	les Drs. M. Diner et V. Legault (Montréal)	Pédodontie
Dr. Glen McGivney (Milwaukee)	Removable Partial Dentures	Être annoncer	Endodontie
Dr. Peter Vaktor (Montreal)	Cardiopulmonary Resuscitation	le Dr. J. M. Korbendau (France)	Périodontie
Dr. Robert Lawlor (Montreal)	Hepatitis B	Être annoncer	Orthodontie
Patricia Burger*	Touch Your Patients with Love	le Dr Robert Lawlor (Montréal)	Hepatite B
		le Dr. Ron Jones (Montréal)	Occlusion
		le Dr. Helene Lemay (Montréal)	Pharmacologie
		le Dr. Pierre Desautels (Montréal)	Matériaux dentaires

*Simultaneous translation

Speakers are to be announced for Thursday's program, but dental computers, oral surgery and endodontics will be the subject areas explored.

CDA-ODQ (continued)

Other speakers to be featured at the convention are: Mr. Bo Braze (Alabama); dental ceramics; Dr. William Donohue (Montreal); cancer; Dr. Ron Fisher (Montreal) radiation therapy; Dr. Zia Shey (New Jersey); pedodontics; and Dr. Harvey Weiner (Florida); endodontics.

In addition to scientific lectures and panel discussions, there will be table clinics, a session on what is new in dentistry, and audio-visual presentations throughout the convention program.

Hygienists and Assistants

The president's luncheon for the Canadian Dental Hygienists Association will be held April 10, and the Quebec Dental Hygienists Association will hold their annual general meeting the same day. Both the Canadian Dental Assistants Association and the Quebec Dental Association will hold their annual general meetings on April 10 as well. A breakfast

for the dental assistants participating will be held April 12, followed by Monica Belcourt, speaking on "Time Management."

Social Program

The conjoint convention also has an extensive social program. Monday April 9 will feature a reception to welcome dentists who have their practices outside the province of Quebec. This wine and cheese reception will allow those out of province, pre-registered delegates to obtain their convention packages. The reception will be held in Montreal's famous Queen Elizabeth Hotel.

Tuesday's social program taking place also at the Queen Elizabeth Hotel will include a sumptuous dinner that evening: a hot and cold buffet à la "Old Quebec", with surprise entertainment, singers, dancers and continuous entertainment throughout an evening that promises to be full of "joie de vivre."

Wednesday April 11 is the night of the Presidents' Gala Evening. This Gala will honour the presidents of both the Canadian Dental Association and the Ordre des dentistes du Quebec. The evening promises delegates a gourmet meal, magnificent atmosphere and dancing into the wee hours to a large orchestra.

Spouses Program

Lest the spouses of delegates feel left out, the following table will highlight the spouses program.

For more detailed information on the CDA-ODQ Conjoint Convention in April 1984 see subsequent issues of the CDA Journal and watch for a special pre-convention mailing in early January. Registration and hotel forms will appear until January 1984 CDA Journal.

SPOUSES PROGRAM	Programme Epouses
TUESDAY APRIL 10, 1984 Morning: A breakfast conference and visit to the Montreal Stock Exchange. Afternoon: Personal Colour Analysis: includes a discovery of colours which suit the individual best, in clothing, make-up and hair, and demonstrations of new hair styles as well. WEDNESDAY APRIL 11, 1984 Morning: City tours: No. 1: "A Day in the Life of a Montreal Woman"; breakfast served at 9 am and a tour of the new Rockland Shopping Centre. No. 2: Sightseeing tour of Montreal: departure 9 am Afternoon: A session and lesson on wine tasting. THURSDAY APRIL 12, 1984 Morning: Two activities to choose from: No. 1: Champagne breakfast at 9 am and lecture presented by Monica Belcourt on Time Management. No. 2: Sightseeing in Montreal: departure 9 am.	MARDI 10 AVRIL 1984 Matin: Petit déjeuner conférence et visite de la Bourse de Montréal. Après-midi: Analyse des couleurs personnelles: comprend la détermination des couleurs qui conviennent le mieux aux personnes en matière d'habillement, de maquillage, de coiffure, ainsi que des présentations de la nouvelle mode de coiffures. MERCREDI 11 AVRIL 1984 Matin: Visite de la ville: No 1: «Un jour dans la vie d'une montréalaise»; petit déjeuner servi à 9h00 et tour du nouveau centre commercial Rockland. No 2: Visite de Montréal: départ 9h00. Après-midi: Session et leçon de dégustation de vins. JEUDI 12 AVRIL 1984 Matin: Deux activités au choix. No 1: Petit déjeuner au Champagne à 9h00 et conférence donnée par Monica Belcourt: «Time Management». No 2: Visite de Montréal: départ à 9h00.

Yukon Dental Association: seminar with a difference

The Yukon Dental Association held a unique summer seminar in July of this year.

Continuing education in dentistry was combined with a nine-day canoe trip down the Big Salmon River in the Yukon. The 200-mile trip started at Quiet Lake and terminated on the Yukon River, just below Carmacks.

"The Big Salmon River, one of the most scenic in the Yukon, proved to be an excellent choice for a trip of this sort," said Dr. John Stern, a member of the Yukon Dental Association, and one of the trip's organizers. "The river had a current fast enough to keep canoeists wide awake, but did not have any rapids which could have been termed dangerous."

There were 15 participants, including nine dentists and a guiding party, under the direction of Hector McKenzie, a wilderness guide.

"The entire party managed nine days without anyone dumping, a tribute to both Hector's teaching abilities and the innate canoeing abilities of the group," said Dr. Stern.

As well as members of the Yukon Dental Association, participants came from Ontario, Saskatchewan, British Columbia and Alberta. Guest lecturers were Dr Shaukat Chaney, from the division of prosthodontics at the University of Saskatchewan and Dr. Pat Pierce, a clinical instructor in periodontics at the University of Alberta.

According to Dr. Stern, the trip was so successful that a wilderness hike, which will again combine continuing dental education with the great outdoors, is being organized for next summer.

"The YDA hopes to organize a hike of the historic Chikoot Trail for next summer's seminar," he said.



The intrepid group is shown at Big Salmon Village on the Yukon River, outside a cabin. Front row (L-R) Drs John Stern and Pat Pierce, Evelyn Radue and Dr. Wayne Beck. Back row (L-R) Dr. Bill Stankovik, Ms. Ellen Kocher, Drs. Thomas Lam, Duncan Wray, John Radue, Blake McAdam, Ms Karen Symington and Ms. Lorna Hutchinson and guide Hector McKenzie.



Shown on a gravel bar on the Yukon River are (L-R) Dr. Thomas Lam, Karen Symington, Dr. Shaukat Chaney, Drs. Wayne Beck, Duncan Wray, Pat Pierce and Blake McAdam, Ms. Evelyn Radue, Ellen Kocher, Dr. Bill Stankovic and guide Hector McKenzie.

New Public Education Materials / Nouveau matériel d'éducation du public



No. 1

Are You Missing a Few Teeth? — explains why missing teeth should be replaced and how they are replaced with either a removable partial denture or a fixed partial denture

Cost to: CDA Members \$18/100
Non-Members \$25/100

No 13

Vous manque-t-il des dents? — explique pourquoi on doit remplacer les dents qui manquent et comment on les remplace, au moyen de prothèses partiellement amovibles ou de prothèses partielles ou ponts amovibles.

Coût aux: Membres de l'ADC \$18-100
Non-Membres \$25-100



No. 39

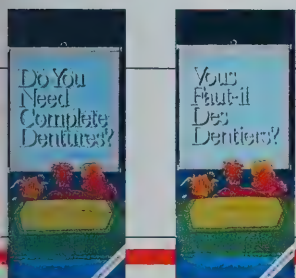
Save that Tooth — describes how the pulp of a tooth can become inflamed and/or infected and how it is treated. The pamphlet explains root canal treatment

Cost to: CDA Members \$ 8/100
Non-Members \$12/100

No 40

Sauvez vos dents — décrit comment la pulpe de la dent s'enflamme et/ou s'infecte, et comment on la soigne. Ce pamphlet explique le traitement de canal.

Coût aux: Membres de l'ADC \$ 8-100
Non-Membres \$12-100



No. 12

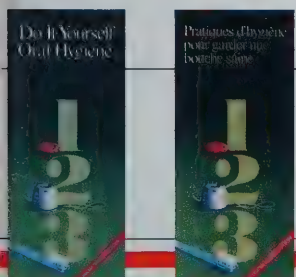
Do You Need Complete Dentures? — explains problems associated with total tooth loss. Readers are provided with information on how dentures are made and how to adjust and clean their dentures.

Cost to: CDA Members \$18/100
Non-Members \$25/100

No 23

Vous faut-il des dentiers? — explique les problèmes relatifs à la perte de toutes les dents. Fournit au lecteur des renseignements la fabrication, l'ajustement et l'hygiène des dentiers.

Coût aux: Membres de l'ADC \$18-100
Non-Membres \$25-100



No. 47

Do It Yourself Oral Hygiene — a colourful pamphlet which, when opened, can be displayed as a poster. It pictorially explains the basic technique for daily plaque removal.

Cost to: CDA Members \$18/100
Non-Members \$25/100

No 49

Pratiques d'hygiène pour garder une bouche saine — pamphlet coloré qui, ouvert, peut servir d'affiche. Explique visuellement la technique élémentaire d'enlèvement de la plaque quotidienne.

Coût aux: Membres de l'ADC \$18-100
Non-Membres \$25-100

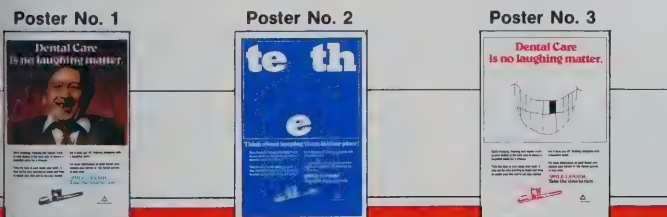
Posters / Affiches (12" x 18")

off the press. These posters were designed to provide your patients with a dental awareness message while in your office.

imprimées. Ces affiches doivent faire prendre conscience de leurs dents aux patients dans votre salle d'attente.

Cost to: CDA Members \$1.00 each **Coût aux:** Membres de l'ADC \$1.00 chaque

Non-Members \$1.50 each Non-Membres \$1.50 chaque



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Circle item(s) of your choice indicating quantity and total cost. All orders must be prepaid to the Canadian Dental Association.

Encerlez le ou les articles de votre choix en indiquant la quantité et le prix. Toute commande doit être payée d'avance à l'Association dentaire canadienne.

Pamphlets/ Brochures	No	No	Quantity/Quantité	Cost/Coût
	1	13		
	12	23		
	39	40		
	47	49		
Posters/ Affiches	1	1		
	2	2		
	3	3		

Cheque enclosed for/Montant inclus \$ _____

Name/Nom _____

Address/Adresse _____

City/Ville _____ Province _____ Postal Code/Code Postal _____

CDA Membership Number / Numéro de membre _____

Dr. Victor Chatwin retires from CDA Post and dentistry

Dr. J.V.P. Chatwin, known as Vic to his friends and colleagues, retired this month from the Canadian Dental Association and the dental profession.

Dr. Chatwin served the Canadian Dental Association as Director of Accreditation for nearly six years, beginning in 1978. From 1974 to 1978 he was with Algonquin College in Ottawa, where he set up and supervised the first dental hygiene program in an Ontario community college.

Born in Regina, Saskatchewan, in 1921, Dr. Chatwin attended the Royal Military College and then served five years overseas during the Second World War. Following his wartime service, he went back to school, graduating from the University of Alberta with his DDS degree in 1951. He had a general dental practice in Petrolia, Ontario, for three years, before returning to the military, where he served in the Royal Canadian Dental Corps from 1954 to 1974.

Dr. Chatwin, who was discharged from the military with the rank of Lieutenant Colonel, said that most of his experience in the Corps was in general practice and hospital dentistry. Following a year at the University of Toronto, getting his specialists' degree in Public Health he moved to National Defence Headquarters in Ottawa, where he was responsible for public health dentistry in the service.

"One of the highlights of my career in dentistry came during my military service. I was appointed as dental staff member to accompany the Queen on her royal tour of Canada in 1970," Dr Chatwin told the Journal.

A fellow of the Royal College of Dentists of Canada and a Fellow of the International College of Dentists, Dr. Chatwin views his retirement with mixed emotions.



(Photo by Heather Lang-Runtz)

Dr. Vic Chatwin is shown leaving Canadian Dental Association headquarters in Ottawa. He retired from the CDA as Director of Accreditation after almost six years service to the Association, and over 30 years service to the profession.

"I am of course sorry to leave dentistry, but there also comes a time when one wants to do other things," he said. "My wife Beth and I are going to move to our home overlooking the ocean in Victoria, British Columbia. I intend to sail, fish, cook and do all the things I really don't have much time left to do," said Dr. Chatwin.

Besides being an amateur fisherman and sailor, Dr. Chatwin has quite a reputation as a gourmet cook. He plans to write another cookbook, to follow the two already in print. The father of three children, two sons and a daughter, Dr. Chatwin also plans to enjoy his growing number of grandchildren.

Bob McAllister honored by Canada and Peru

Bob McAllister, the former Azilda, Ontario, Lion's Club president who is gaining a reputation for helping those less fortunate than himself, was recently honored by both Canada and Peru for his voluntary contributions to both Peru and the Caribbean.

Mr. McAllister was given Canada's highest honour on October 6, 1983 when he was invested into the Order of Canada. Attending the investiture were officials from the Canadian International Development Agency (CIDA), the Canadian Public Health Association, the Canadian Dental Association, the Ontario Hospital Association, as well as the Honourable Judy Erola, Mr. McAllister's Member of Parliament and Minister of Consumer Affairs, and the Peruvian ambassador to Canada, Juan Pablo Fernandini.

Mr. McAllister is the co-ordinator of a program to get dental and hospital equipment to clinics and hospitals in both the Caribbean islands and Peru. He is known affectionately as "super-scrouser" since all the equipment shipped to these countries under the program is donated. The program is carried out with the co-operation of CIDA, the governments of the countries involved and local area Lions Clubs.

Mr. and Mrs. McAllister also attended a private dinner given in their honour by the Peruvian ambassador to Canada, Juan Pablo Fernandini, and his wife. The dinner on October 7, was also attended by executives from CIDA, major Canadian health organizations, including CDA, Canadian senators, hospital executives and embassy staff members.

Following the dinner, Mr. Fernandini, announced that Mr. McAllister would be receiving an honor similar to the Order of Canada from the government of Peru, for his efforts.

Mr. McAllister, who returned to



A proud Bob McAllister, left and his wife Joyce shown following a dinner given in their honour by Peru's ambassador to Canada, Juan Pablo Fernandini and his wife, Oct. 7, 1983. The medal displayed on Mr. McAllister's lapel, is the Order of Canada, which he received October 6.



(L-R) Senator Royce Frith, of Perth Ontario, who introduced Mr. McAllister to his first contact in Peru to start the program; Hubert Drouin, Executive Director of the Canadian Dental Association and Bob McAllister.

Peru with another shipment shortly after the investiture ceremonies, told the Journal that eight seagoing containers full of dental equipment had been sent to Peru for use by Peruvian hospitals and dental clinics. All of the equipment is donated, much of it coming through the University of Toronto faculty of dentistry.

"We have also been successful in getting smaller dental equipment, other than dental chairs, lights... and

some of this will be going to Peru, while the rest will be sent on the the Caribbean," said Mr. McAllister.

"It is important to note that all of this equipment is donated and that all the needs of Canadians are filled before any equipment is sent overseas," he said. "No Canadians in under-served areas, such as the Canadian north, are going without dental or hospital equipment because of this program."



Peruvian Ambassador, Juan Pablo Fernandini, Left, shows Bob and Joyce McAllister the letter detailing the Peruvian award to be conferred upon Mr. McAllister by the government of Peru for his contributions of dental and hospital equipment to that country.

Dr Gordon Agnew — dentist, educator, scientist and scholar dies at 85

by Heather Lang-Runtz

Canadian and international dentistry are the lesser for the loss of one of their chief spokesmen, with the death of Dr. R. Gordon Agnew on June 7, 1983.

Both the profession of dentistry and the science field as a whole will feel the loss keenly of a man who contributed enormously to both fields.

A native of Toronto, Ontario, where he was born in 1898, Dr. Agnew's career credentials are impressive: he served as a missionary and dentist in China for 18 years; he served as an advisor to General Chiang Kai-Chek and was a member of the National Dental Health Board of the National Health Administration for the former government of China. Active in the International College of Dentists, he became a Fellow in 1931.

Dr. Agnew took his undergraduate studies at the University of Toronto, where he was instrumental in organizing the first faculty of dentistry variety show called "Dentantics", and created the school's yell: "Hya Yaka." He went on to receive five academic degrees from U of T, before heading for China in 1925.

He taught at the School of Dentistry of West China Union University in Chengtu, Szech-an until 1946. That year, he returned to the United States, where he joined the faculty at Baylor University. Dr. Agnew then went on to the University of California's School of Dentistry, where he was later appointed to the School of Medicine and Division of Graduate Studies.

Dr. Agnew's interests revolved around the teaching of Oral Pathology, Oral Diagnosis and Periodontology. Many of his publications, more



Dr. Gordon Agnew

than 82, focus on his research in these areas.

A past-president of the International College of Dentists, Dr. Agnew was also a member of the speaker's bureau of the World Affairs Council, a member of the California Association for Mental Health, an editor of the *Scientific and Educational Journal of the International College of Dentists* and an active member of the Academy of Dentistry International.

Dr. Agnew received many awards and fellowships in his lifetime, including the prestigious Fulbright Fellowship to Iran.

Obituaries / Nécrologies

AFARI, G.: Dr. Afari, who graduated from the University of British Columbia in 1972, practised in Gloucester, Ontario. He was born in 1945.

CROSBY, H.S.: Born in Hebron, Nova Scotia in 1896, Dr. Crosby graduated from Dalhousie University in 1923. He practised in Halifax, was Professor Emeritus at Dalhousie, and a past president of the Nova Scotia Dental Association. He was an honorary member of the CDA, and a Fellow of the International College of Dentists.

GERARD E.I.: Dr. Gerard, of Duncan B.C. was a graduate of the University of Alberta in 1966.

GREENFIELD, M.G.: Dr. Greenfield of Calgary Alberta, graduated from the University of Alberta in 1974.

JAUGELIS, A.O.: A McGill University graduate in 1959, Dr. Jaugelis practised in Montreal, Quebec.

LYMBURNER, M.: Dr. Lymburner, A CDA Life Member, practised in St-Laurent, Quebec and graduated from the University of Montreal in 1924.

ROBERTSON, A.W.M.: A member of the Federation Dentaire Internationale, Dr. Robertson graduated from McGill University in 1957.

SULLIVAN, W.C.: A graduate from the University of Toronto in 1937, Dr. Sullivan practised in Cornwall, Ontario.

SULTIMANIS, G.: A gold medalist graduate of McGill University in 1956, Dr. Sultmanis, of Toronto Ontario, was a member of the University of Toronto's teaching staff.

All dental interest groups describe CDA National Convention as 'highly successful'

"The best convention yet; went without a hitch."

This was a common comment from many of the 2,900 dentists, hygienists, assistants and spouses who attended the Canadian Dental Association's National Convention in Vancouver, September 25-28.

"Scientific sessions were highly informative and educational and entertainment was super," were further enthusiastic assessments of the memorable occasion.

Dentists attended in impressive numbers — 1,442 of them. About twice as many hygienists registered than was earlier anticipated, and nearly 400 dental assistants.

Even the weather man cooperated with mostly sunny, although somewhat cool, late September skies. Only one day of Vancouver rain intruded.

The rain, however, was cheered by the nearly 600 exhibitors, who held forth in the Hyatt Regency Hotel in 129 booths. The rain provided a captive audience, and exhibitors reported brisk business. However, business was good throughout the Convention, they reported.

Impressive highlights

There were many impressive highlights in the Convention, associated meetings and social functions, most of them staged in the Hotel Vancouver.

A distinguished guest, Dr. Thorsten Aggerdy, President of the Federation Dentaire Internationale, addressed the CDA Board of Governors meeting, which immediately preceded the Convention. Dr. Aggerdy's comments were highly complimentary to the CDA.

Funn Runn

Delegates caught the spirit very early in the proceedings.

More than 240 dentists, spouses,



CDA President Dr. Robert N. Hicks, left, receives the chain of office from Immediate Past-President, Dr. William R. Thompson at the Installation and Awards Luncheon in the Hotel Vancouver.



CDA'S top executives gathered for this portrait following the Presidential Installation and Awards Luncheon in the Hotel Vancouver. They are, left to right: President-Elect Dr. Ralph Crawford, Past President Dr. Donald E. Williams, President Dr. Robert N. Hicks, and Immediate Past-President Dr. William Thompson.

hygienists and assistants puffed, perspired and passed over the finish line, in Stanley Park during the Funn

Runn, the first official event of the Convention, early on Sunday morning, September 25.

In the afternoon, the exhibit area in the Hyatt Regency Hotel was officially opened by CDA officials, including Past-President Dr. William R. Thompson. Board Chairman Dr. N. Mancini, President-Elect, Dr. P.R. Crawford, Executive Director Hubert Drouin, Convention Committee Chairman Dr. Ted Ramage and Dr. D.E. Williams, and President of the Dental Industry Association, Harold King.

At the Registration Party that evening, some of the beneficial physical effects of the Funn Runn were negated, but the foretaste of the high quality of entertainment provided by the organizing committee made delegates forget the fact.

The audience of about 2,500 watched true Western style performances, reminiscent of British Columbia's "Gold Rush Days." There was Dixieland music, Klondike-style dancing girls, a highly competent senior citizen banjo player who set hands and feet in motion and a performer whistling through a very large top hat.

Overflow audiences

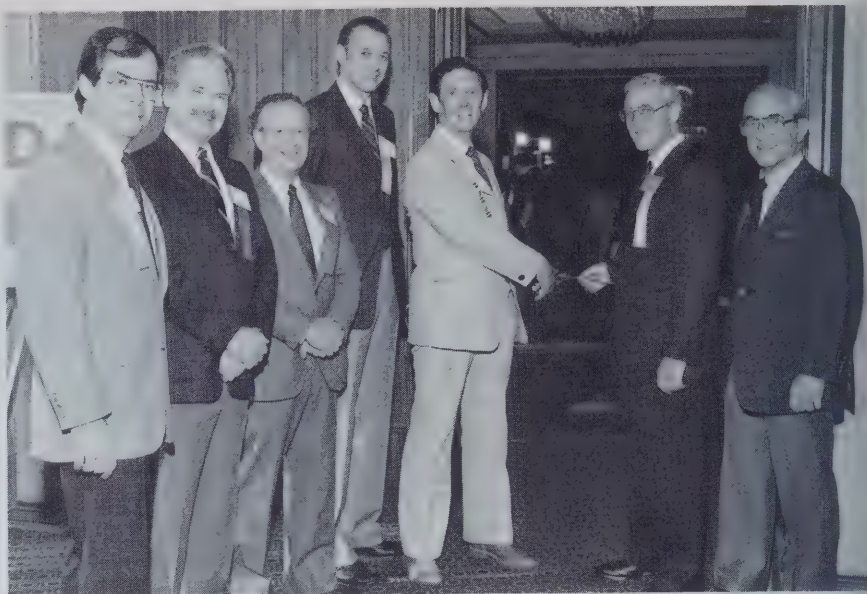
Scientific sessions, including CDA's Grieve Memorial Lecture, presented by Dr. Alan A. Lowe, Professor and Head of the Department of Orthodontics at the University of British Columbia dental school, were filled to capacity and overflowed into the corridors, on Monday, September 26.

Circumstances were similar at many of the other presentations, including "Simplifying Occlusion," a panel on Forensic Dentistry, another on Infection and Disease Control, sessions on Removable Prosthodontics, Lesions, Growths and Abnormalities and panels on Endodontics and Operative Dentistry.

The Royal College of Dentists of Canada symposium on Periodontal Diseases continued all morning and afternoon, with a heavy attendance.

CDA President exalted

On Monday evening, a group from



CDA officials gathered Sunday afternoon Sept. 25 at the Hyatt Regency Hotel to cut the ribbon to officially open the exhibit area. Left to right are: CDA Executive Director Hubert Drouin, President-Elect Dr. Ralph Crawford, Past-President Dr. Donald E. Williams, Convention Committee Chairman Dr. Ted Ramage, Immediate Past-President Dr. William R. Thompson, President of the Dental Industry Association Harold King, and CDA's Board Chairman Dr. Nick Mancini.



Dr. Alan A. Lowe, left, Professor and Head of the Department of Orthodontics, Faculty of Dentistry, University of British Columbia, who delivered this year's Grieve Memorial Lecture, is shown receiving a framed certificate commemorating the honor, from CDA's immediate Past-President, Dr. William R. Thompson.

the College of Dental Surgeons of British Columbia performed a hilarious and colorful ceremony in the Hotel Vancouver, with the new CDA President, Dr. Robert Hicks and "Queen Victoria" (looking somewhat mortified) as centrepieces.

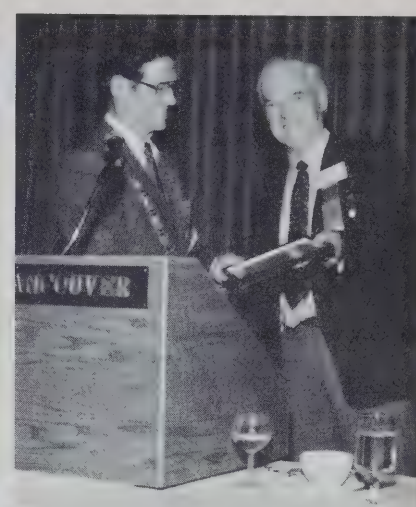
A town crier read a scroll and exacted solemn promises from Dr. Hicks to extol the benefits of attendance at the BC College Convention in Victoria next spring. He was presented with an impressive new silk hat, and several kisses.



Dr. Douglas Yeo, right, Associate Dean, Faculty of Dentistry, University of British Columbia, receives CDA's Distinguished Service Award, from Past-President Dr. William R. Thompson, at the Installation and Awards Luncheon.



Dr. William Miller of Vancouver, President of the CDA in 1961-62, received an Honorary Membership from CDA Past-President Dr. William R. Thompson, (at podium) during the Installation and Awards Luncheon.



Dr. John Frederick Reid of Vancouver, right, President of the CDA in 1974-75, received an Honorary Membership from Immediate Past-President, Dr. William R. Thompson, during the Installation and Awards Luncheon.

Fitness is popular

On Tuesday, CDA's Teaching Conference on the subject of Practice Management, led by Dr. Harvey Strand of Seattle, Washington, and a presentation on "Nutrition, Physical Fitness and Body Fat," conducted by Covert Bailey of Lake Tahoe, California, again drew overflowing audiences.

Nearly 800 attended the Nutrition and Physical Fitness sessions, conducted through the morning and afternoon.

Other well-attended scientific presentations Tuesday included a panel — "The Future of Dentistry," and sessions entitled "Oral Radiology Update," "Cast Restorations: How and Why," a panel on Periodontics, "Alcohol and Other Drugs — the Risk" and a panel on Occlusion.

Table clinics enjoyed a steady flow of interested delegates.

President's Luncheon

At noon on Tuesday, September 27, about 1,280 dentists, hygienists and assistants packed two rooms of the Hotel Vancouver for the CDA President's Installation and Awards luncheon.

Dr. William Thompson passed the presidential chain of office to Dr.

Robert N. Hicks of West Vancouver.

Two former CDA Presidents, Drs. William Miller and John Frederick Reid, both of Vancouver, were awarded CDA Honorary Memberships.

Dr. Douglas Yeo, Associate Dean, Faculty of Dentistry, University of British Columbia, received CDA's Distinguished Service Award.

Dr. Ralph Crawford of Winnipeg, was introduced at the luncheon as CDA President-Elect. Dr. Thorsten Aggeryd, President of the Federation Dentaire Internationale, was introduced, as an honored guest.

Immediately following the luncheon, Dr. Hicks presided for the first time at a meeting of the CDA Executive Council.

President's 'Extravaganza'

The somewhat superlative tag — "extravaganza" — was vindicated on Tuesday evening in the ballroom of the Hotel Vancouver — colorfully decorated by a large backdrop of the city's skyline, in "Super-Natural B.C."

The convention planning committee had pulled all the stops and the quality of the entertainment was quite superlative.

As the event began, CDA executive members and wives were escorted

along an elevated ramp by "Captain George Vancouver" and a variety of other colorful characters.

Then a Las Vegas-style show began, with dancing girls, mime acts, singers and a groups of pretty young local musicians.

Suddenly, bands emerged from all corners of the ballroom. A spirited and stirring pipe band paraded in, then two brass bands, and finally a orchestra appeared under the back-drop.

Animals, reposing mermaids, lighthouses and other ocean-side memorabilia, were escorted or carried through the centre of the ballroom.

Dancing followed to the "big band sound" and the floor was continually filled.

Wednesday events

Most of the events on Wednesday, September 28, were scientific sessions, including presentations on "The Marriage of Periodontics and Restorative Dentistry," "Current Tax Topics," and a continuation of CDA's Teaching Conference.

Panels were conducted on the subjects of "Fixed Prosthodontics" and "Oral Surgery."

Dr. Robert N. Hicks installed as CDA President

West Vancouver orthodontist, former alderman and university lecturer, Dr. Robert N. Hicks, received the chain of office as President of the Canadian Dental Association on Tuesday, September 27, from the outgoing President, Dr. William R. Thompson.

Dr. Ralph Crawford, of Winnipeg, a member of the CDA Board of Governors, was introduced as President-Elect, during the President's Luncheon at the National Convention in Hotel Vancouver.

Dr. Hicks received his DDS degree from the University of Alberta in 1962 and an MS in his specialty of orthodontics from Northwestern University, in 1967.

He set up a practice in West Vancouver and from 1968 until the present, has served as a part-time faculty member of the University of British Columbia's Faculty of Dentistry.

His deep interest in community affairs led him to active participation in municipal politics. He served as an



Dr. Robert N. Hicks

alderman on West Vancouver's city council from 1976 until 1982.

Service to profession

Dr. Hicks has already provided strong and effective leadership to his profession in a variety of capacities.

He has been a member of CDA's Board of Governors since 1974 and has gained distinction as chairman of the CDA Taxation Committee from 1978 to the present.

The CDA has enjoyed the benefit of his counsel and action during two

terms he has served on the Executive Council of CDA - in 1977-78 and 1979 to the present.

In his community and home province, Dr. Hicks has made his mark in dental and other organizations.

He was President of the Vancouver and District Dental Society in 1972-73, President of the College of Dental Surgeons of British Columbia in 1974-76 and in 1978-80 was a board member of the Cancer Control agency of British Columbia. He became President of the Board of the Cancer Control Agency in 1982.

Also in 1982, Dr. Hicks became president of the Canadian Association of Orthodontists.

Honorary memberships

Dr. Hicks is a Fellow of the International College of Dentists and a Member of the Pierre Fauchard Academy.

He and his wife Robin have two children, Bryan, 15, and Janet, 13. Dr. Hicks enjoys skiing, fly fishing, water-skiing and squash.

Dr. William Thompson praises attributes of new CDA President, Dr. Robert N. Hicks

In his introduction of the new CDA President, Past-President Dr. William R. Thompson said that qualities he would like to see in an ideal CDA president would be "that he or she should be actively practising, knowledgeable and experienced in provincial and national dental activities, astute, politically interested and experienced, and challenged by confrontation and legal issues. Ladies and gentlemen," he continued, "we are indeed most fortunate that incoming president Dr. Bob Hicks has all these attributes and more."

Dr. Thompson then handed over the presidential chain of office to Dr. Robert N. Hicks of West Vancouver.



Dr. William Thompson

'Feeling of accomplishment'

Earlier in his remarks, Dr. Thompson thanked "a very significant number of dentists and a most responsible and dedicated headquarters staff" for

their "assistance, support and cooperation" during his presidency. He said it has "allowed me to finish my year with a feeling of accomplishment."

Continue 'high activity'

He urged that issues facing dentistry "will necessitate either the continuation of the present high activity in numerous areas, or indeed, increases in specific areas. Certainly the CDA involvement with the federal government has substantially increased and I feel will continue to do so if we are to represent organized dentistry effectively and also improve our member services, both for the

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Dr. P. Ralph Crawford is new president-elect of CDA

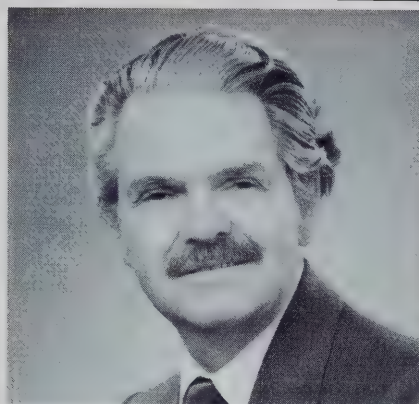
Dr. Crawford has enjoyed a varied career since his early days in Winnipeg, his birthplace in 1928.

He has been involved in the theatre business, as a lay minister in southern Saskatchewan, then a dentist and a part-time university lecturer.

He attended high school in Winnipeg, the College of Notre Dame in Wilcox, Saskatchewan, the University of Saskatchewan, and the University of Ottawa, where he obtained a BA degree in 1959.

Dr. Crawford was awarded a DMD with honors from the University of Manitoba in 1964. Since that time he has conducted a general practice in Winnipeg. He has also been a part-time lecturer and clinical demonstrator at the University of Manitoba's Faculty of Dentistry, in removable prosthodontics. He more recently became co-ordinator of the Geriatric Dental Program.

He has been a member of CDA's Board of Governors since 1979 and a member of the Executive Council



Dr. P. Ralph Crawford

since 1981. Dr. Crawford was chairman of the CDA National Convention in 1978.

Very active in the MDA

Dr. Crawford has been a very active member in the Manitoba Dental Association for several years, and served as President in 1976. He has given leadership as chairman of that Association's Mediation, Ethics, Public Relations, Denture Clinic and Legislative committees, in recent years.

He was the Manitoba representa-

tive on the NDEB Board of Directors in 1978-80 and has served as NDEB Examiner in Prosthodontics from 1976 to the present.

Dr. Crawford has been awarded the MDA President's Award of Merit ("Dentist of the Year") twice, in 1975 and 1978.

He is a Fellow and a member of the International College of Dentists, an executive of the Canadian Association of Prosthodontics and an associate member of the American Academy of Implant Dentistry.

In 1978, he was named to the Board of Directors of the University of Manitoba Alumni Association and is currently president of that body.

He is also an active member of the Winnipeg Rotary Club, a member of Omicron Kappa Upsilon fraternity and Charter Beta Iota of Xi Psi Phi.

Dr. Crawford is married and he and his wife Olga have a family of two. Patrick has an MSc in Entomology and Aileen has recently graduated from high school.

self-employed and salaried dentist.

"Any of our inputs must be coordinated," he continued, "so that we present all aspects, which means discussions with provincial associations (our corporate members) as well as with the ACFD, NDEB, RCDC, our specialist sections and the very important auxiliary representative organizations CDHA and CDAA."

Membership improvement

Dr. Thompson said improvement in membership "must continue, if we are to represent all of the dentists in Canada, and there is no question that our effectiveness in lobbying is directly proportional to the numbers we represent. We know by our success in changing government direction in the proposed taxation of dental benefits that we can be successful if we lobby hard enough."

He also stressed the importance of individual letter-writing to support a lobby group, saying, "I therefore request that when other important

issues arise which require or would benefit from you writing your member of parliament and others, that you indeed do so."

CDA Retirement Savings Plan

Unit values of the Canadian Dental Association's Retirement Savings Plan stood as follows on October 31, 1983.

<i>Common Stock Fund</i>	\$71.44569
<i>Fixed Income Fund</i>	\$37.39415
<i>Guaranteed Fund</i>	\$27.08490
<i>Balanced Fund</i>	\$15.19816

Total assets (market value) of the plan were \$37,227,863.

The previous month's figures, as of September 30, 1983, stood as follows:

<i>Common Stock Fund</i>	\$75.40087
<i>Fixed Income Fund</i>	\$36.90185
<i>Guaranteed Fund</i>	\$26.89581

Balanced Fund \$15.32383

Total assets (market value) of the plan were \$37,857,710.

For further information write to: Canadian Dental Service Plans Inc., Ste. 600, 2 Lansing Square, Willowdale, Ontario M2J 4Z3 or call the central information services of CDSPI at 1-800-268-5418 (toll free number for Western Canada, Atlantic Canada and Ontario for Code 807 only, 1-800-268-3411 (toll free number for Quebec and Ontario except Code 807), and 497-7117 (Metro Toronto area).

Dr. Thorsten Aggeryd, President of the FDI, is distinguished guest at CDA Convention

The most distinguished guest at the Canadian Dental Association national convention in Vancouver, and the CDA Board of Governors' meeting, Dr. Thorsten Aggeryd, President of the Federation Dentaire Internationale, had warm praise for his hosts.

Dr. Aggeryd told the Board of Governors that "the Canadian Dental Association has always been a very interested member of the FDI, a strong supporter, a good organizer of an Annual World Dental Congress and a member association which has put several good colleagues in different activities of the FDI — councils, commissions, etc."

He also said that the CDA had given helpful advice and proposals on how the FDI should be organized, and that CDA input had helped the FDI out of a dilemma when the American Dental Association temporarily curtailed its support of the FDI and the FDI almost lost the ADA as a member.

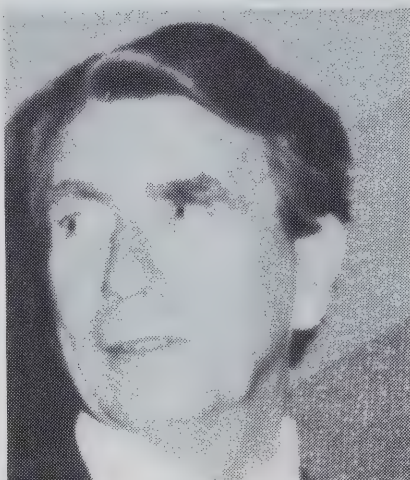
For this and other reasons, Dr. Aggeryd said, one of the first personal visits he arranged was to the Canadian Dental Association.

Self examination

Because of the ADA incident, he said, it called for a self-examination of the FDI structure, "the work we had to do, the relationship between the Federation and member associations, the relations between the leadership of the Federation and the leadership of member organizations. Also, the very important cooperation between the FDI and the World Health Organization (WHO) as well as the whole policy-making, mechanism, had to be analyzed and discussed."

More personal contact

One of the matters decided was that



Dr. Thorsten Aggeryd

there should be more personal contact between the FDI President and the leaders of member organizations, and also better communication about activities.

Close cooperation is essential between the FDI and the World Health Organization because, Dr. Aggeryd said, "we now have some of the biggest projects we have ever undertaken. For the first time, a few years ago, the Federation and consequently the dental profession all over the world became involved in a global health program. WHO decided to set its biggest goal: Health for all in the Year 2000. As part of this world-wide activity, WHO decided to involve oral health and to work with the cooperation of the FDI toward the project goals for oral health in the year 2000."

These goals, in order to be successful, require the following conditions:

- "to have a willingness from the Federation's national dental member associations to give their support;
- to have FDI as an organisation for the dentists including most of the national dental associations in the world; and,
- to have good cooperation with WHO and an acceptance from

WHO of FDI as a partner representing the absolute majority of the national dental associations in the world."

Oral health improvement

The WHO and FDI objectives "must be considered in light of the improvement of oral health in industrialized countries, as compared with conditions in developing countries," Dr. Aggeryd said. He explained that in 1967, among 16-year-old school children in Sweden, they had an average of 14 class II fillings. In the same age group in 1978, the figure was 1.2. "There are 10,000 dentists serving a population of 8.3 million people in Sweden, while in Ethiopia, there are 15 dentists serving a population of 30 million people." He said that the whole continent of Africa has an average of only one dentist for 100,000 inhabitants.

The "International Collaborative Oral Health Development Project" is working with this problem as part of the Oral Health for All in the Year 2000 goal, he said.

Oversupply of dentists

Surplus dental manpower is another problem to be faced, he said. "We have just now started a very dramatic period with an oversupply of dentists and/or too little demand for dental care, and as a result, we have unemployed young dentists" (in Sweden). "We have the same situation in Denmark and it is coming closer in the other Scandinavian countries. In the Norwegian Dental Journal a few months ago, a report from a discussion in Copenhagen had the headline, 'More than 3,000 unemployed dentists in Scandinavia in five years'."

He commented on the ADA activities dealing with the problem of too little demand for the services of den-

Continued on page 826

Highlights of Future Dentistry panel discussion at CDA Convention

One of the best attended panel discussions at the CDA Convention was a panel on "The Future of Dentistry." Participants were Dr. George Beagrie, dean at the University of British Columbia, faculty of dentistry; Dr. Alan Gray, Director of Dental Services for the B.C. provincial government; David Tobias, a fourth year dental student; David Schreck, general manager of CU and C. Health Services, a non-profit, third party payment administrator, and Jean Voris, Director of the Dental Hygiene program at UBC.

Highlights of each speaker's presentation, and predictions for the future of dentistry, were provided to the Journal by Dr. Brian Rocky, who attended the panel and is in private practice in Richmond, B.C.

Dr. George Beagrie: Dr. Beagrie, in his presentation, concerned himself with, primarily, the future perspectives in dental education. One of his key observations was that if curricula at a dental faculty were changed, by adding or subtracting programs, even after faculty agreement, it would take as long as 15 years to see the results of any changes made to the university curriculum.

Any predictions he made were made on the basis of significantly decreased incidences of caries and some decrease in periodontal diseases over the next twenty years.

Dr. Beagrie predicted that a pre-licensure year would come in for dental degree graduates and the use of microbiology screening tests will be utilized by third party insurance groups to identify high risk groups in regards to dental care. He commented that, in his opinion, practice management should not be taught in an undergraduate program.

Dr. Alan Gray: As a provincial government dental director, he comment-

ed that it was difficult to predict the future and make policy decisions accordingly. He spoke of the situation in B.C. where there has been a tremendous decrease in the need for future service provisions. He attributed this to a wide range of factors including:

- (1) Increase in the supply of dentists per population;
- (2) School dental health programs started;
- (3) The wide use of fluoridated toothpaste and fluorides in general;
- (4) The profession's emphasis in general on preventive dentistry, leading to behavioural and motivational changes within the population.

For the future, he predicted the use of a valid remineralization solution for incipient caries, and for the dental profession to combat less busyness by attacking the un-met dental needs of certain groups of people. He expressed a concern in general about the public's perception and therefore, perhaps the government's that dental care is less essential than medical care and that perhaps dentistry is getting "too expensive". He also predicted in-

creased accountability for the provision of quality care.

David Tobias: As a fourth year dental student, he provided the audience with a student's perspective that there was an exciting future for dental graduates, although he admitted that decreased demand for dental services was causing concern to new graduates. One way to compensate for this, he said, was to increase accessibility to patients. He predicted the shifting of undergraduate training to be more closely allied with the European model of "stomatologists."

David Schreck: As a third party payment representative, he said as the dental insurance industry relates to B.C., utilization rates have increased generally, although there tends to be an inverse correlation in regards to socioeconomic groups. He felt that the growth of third party coverage is becoming very limited, as only federal employees as a group remained as a major uncovered entity, and that no "effective demand" (ie no funding by employee/employer negotiations) was occurring. Some employers were wanting increased limitations put into their plans, with employees having to cover the excess. He felt that if this happened, then employees would rather choose "money in the pocket" and that they would withdraw from plans, causing a significant collapse of the number of people covered.

He ended by expressing some concern over abuse of plans by patients/practitioners, and that his company had instituted a program to help counteract this, as well as forwarding information to the licensing body.

Jean Voris: As a hygienist she said the answer to increasing busyness in dental offices was to train and use dental auxiliaries as "dentist's marketing agents" to encourage patients to achieve good quality dental care.

Cover story

This edition's cover depicts one of the most colorful and memorable events of the 1983 CDA Convention in Vancouver — the "President's Extravaganza" — in the Hotel Vancouver.

The striking backdrop shows the skyline of downtown Vancouver.

This, and most of the other Convention photographs in this edition, were taken by Wayne Wetstone and produced at the studios of his "Challenge Group" Vancouver firm.

Dr. Alan A. Lowe delivers Grieve Memorial Lecture

Dr. Alan A. Lowe, Associate professor and head of the Department of Orthodontics at the University of British Columbia had the honour of giving the Grieve Memorial Lecture at the CDA Convention in Vancouver, in September.

The title of his lecture was "Muscle Determinants of Tooth Position: Fact Versus Fallacy." A summary of the text of that lecture is printed here.

Although the jaw musculature has often been cited as an etiologic factor in the development of malocclusions and various treatment modalities have been postulated to correct "aberrant" activity, only limited long-term treatment success has been documented. A series of ongoing research investigations at the University of British Columbia have evaluated mixed and permanent dentition patients with various malocclusions and compared their dental, craniofacial and muscle criteria to a sample of control subjects with normal occlusions. Major advancements in computer technology combined with the development of new instrumentation for the evaluation of radiographic and model variables permit accurate and rapid evaluation of such data.

A total of 55 children with Class I (n=18), Class II Division 1 (n=25) and Class II Division 2 (n=12) malocclu-



Dr. Alan A. Lowe

sions have been evaluated. Jaw muscle data from the temporalis, masseter and orbicularis oris muscles at rest, in maximum intercuspation and during clenching, jaw opening, swallowing and mastication have been edited and filed. Software programs have been developed to determine traditional craniofacial measurements together with muscle orientation variables from cephalometric headfilms. A principal component analysis reduced the data base and canonical correlations were calculated to determine if linear combinations of cephalometric variables were related to muscle activity or muscle angulation variables.

Significant canonical correlations could not be found between the ce-

phalometric data and clench, swallow and jaw opening muscle tasks which suggests no dependancy between these factors. Two canonical correlations were found for the rest position data. A linear combination of maxillary-mandibular unit length difference plus the combined variable of SN-OP/SN-PP was correlated with a linear combination of temporalis and orbicularis oris muscle activity recorded at rest. The second canonical correlation with rest position data involved six cephalometric and three muscle variables. For the maximum intercuspation data, a single significant canonical variable was found. An association between superficial masseter muscle orientation relative to the occlusal plane and mandibular form was identified. Subjects with anteriorly-inclined masseter muscles tended to reveal short posterior face heights, steep mandibular planes and large gonial angles.

This interdependence of jaw muscle activity and craniofacial morphology suggests a contribution from the musculature to the maintenance and stability of the dentition and supporting bony structures. The clinical significance of these recent findings together with their relationship to the etiology, diagnosis and treatment of skeletal malocclusions was discussed.

continued from p. 824

tists in the United States, and the statistics that only "about 50 per cent of the adult population yearly look for dental treatment. We have about the same figures in Scandinavia, too, as well as in many other countries."

Exchange information

The FDI believes that member organizations should be encouraged to exchange information on proposals or possible ways to improve these figures. Dr. Aggerdyd said that an

"important program in next year's Annual Congress in Helsinki will be a special session on the program, "Lowering the Barriers to Oral Health Care in Industrialized Countries."

He said it is an "indisputable fact" that most and probably all activities in these fields "must be done by the national dental associations." The executive of the Federation however, with an overview of the situation in a large number of countries of the world and a knowledge of many of the

ongoing activities, feels, that "in order to help the dental profession, it is the duty of the Federation to organize a meeting where different activities can be discussed and analyzed."

Guidelines for the objectives of the meeting include presenting a "shopping list" of various activities, he said, "aimed at converting current needs for dental treatment into demand, for further study and possible adaptation to national conditions by interested member associations."

Dental Anaesthetics Subject of U.S. Television Report

A report on the safety of dental anaesthetics was recently the subject of the U.S. television program 20-20.

Anaesthetic safety in dentistry became a topic for discussion following reported cases in the U.S. of drug-induced death or brain damage in dental offices.

One of the over 1,000 interviews conducted for the report by 20-20 journalists was with Thomas Ginley, PhD, who is director of the American Dental Association's policy and planning department. The ADA also provided background information to the television program, including the Association's "Guidelines for Teaching the Comprehensive Control of Pain and Anxiety in Dentistry." This document details the ADA's recommendations for properly educating dentists in modern anaesthetic techniques.

"The Guidelines are a clear and

comprehensive statement of what we know to be essential to any educational program in dental pain control," said Dr. John M. Coady, ADA Executive Director. "They exemplify our professional goal, which is to ensure that dentists are thoroughly and properly trained to serve the needs of their patients."

Commenting on the interview granted by the ADA to the program, Dr. Coady said "We believe that the members expect their Association to present dentistry's positive viewpoint, and that it would have been a disservice to the profession to shrink from controversy and fail to take some action."

On-camera for ADA, Dr. Ginley emphasized that the Association does not defend the misuse of anaesthetics by any professional. "One of the Association's functions is to ensure the

competence of dental graduates in the delivery of dental care, not to defend incompetence or negligence," he said.

However, he emphasized that ADA is not a licensing body, although 18 states have adopted the Association's aforementioned Guidelines as a consideration in setting licensure requirements.

One of the anaesthetics that came under discussion was the drug alpha-prodine hydrochloride, which should not be used on patients under 12 years of age. Following a number of deaths in that age group in the U.S., the manufacturer pulled the drug from the market, re-introducing it only when a number of prominent pedodontists voiced their support of the anesthetic.

A second segment of the program dealt exclusively with this drug in particular.

CDRF Award presented to Dr. Christopher A. McCulloch

Christopher Allan McCulloch, BSc, DDS, PhD, FRCD(c), received the 1983 Canadian Dental Research Fund (CDRF) Award during the CDA Board of Governors meeting at the Hotel Vancouver, from Dr. William R. Thompson, Past-President of the CDA.

The Institutional Award goes to the faculty of dentistry of department of the university where the recipient of the award conducted his research. This year it was awarded to the Department of Oral Biology of the University of Toronto.

Dr. McCulloch conducted his research under the supervision of Drs. A.H. Melcher and Donald M. Burnette.

He was successful over four other



Dr. Christopher A. McCulloch

candidates for his submission: "Cell Migration in the Periodontal Ligament of Mice." The kinetics and

origins of progenitor cells were examined.

Dr. McCulloch, who was born in Winnipeg, is a specialist in Periodontics and has a specialty practice in Hamilton, Ontario.

He is presently continuing to do post-doctoral research at the Department of Anatomy at the University of Toronto medical school. He received his PhD degree from the university in 1982 for biological research.

His present goal is to get funding for a five-year research project studying the pathogenesis of Periodontics.

He has applied for a Medical Research Council scholarship.

The CDRF Award is presented annually to stimulate dental research in Canada.

Executive Director's Report on the 1983 Annual Board of Governors Meeting — Highlights

The following is a report of some of the highlights of the Annual Meeting of the CDA Board of Governors, held in Vancouver on September 23-24th.

Finances

The Board approved the budget for 1984 which includes an increase of 25% in membership fees.

Revenues for 1984 are projected at \$2,892,778 while expenditures for activities and member services total \$2,625,280. The audited statement for 1983 will be presented for approval in April and published in a subsequent issue of the Journal.

Membership

The Governors were apprised of the results of the 1983 Membership Campaign. The trend in decreasing membership numbers appears to have ended and a system to retain voluntary members, regain former members and attract dentists who have never joined the Association is being implemented. The campaign for next year will be stressing that a member organization is only effective through total involvement by all of its members.

The definition of Student Member has been changed to accommodate full-time post-graduate students.

The Board also approved that March 31 is the official date on which all individuals who have not paid their membership dues will be designated non-members. All member services will thereafter not be available to those individuals on a complimentary basis.

Committee on Salaried Dentists

A Committee on Salaried Dentists was approved by the Board, as a standing committee of the Executive Council, to consider concerns of this particular group. Salaried dentists are



Hubert E. Drouin
Executive Director

defined as those dentists who are employed by municipal, provincial or federal agencies (including universities and colleges) to the extent that at least 80% of their time is devoted to a salaried position. Emphasis will be placed on improved communication and services to dentists in these areas.

Ad Hoc Committee on Hospital Services

The Governors considered the initial report of the Ad Hoc Committee on Hospital Services which recommended a restructuring of the present Councils on Education and Hospital Services, under a Council on Accreditation and a Council on Educational Services. The decision was made to call together several members of both Councils and request input from other interested organizations, as represented at the Board of Governors meeting. A second report will be brought to the Interim meeting in Montreal in April, 1984.

Taxation

The Board was informed that the Taxation Committee continues its opposition to the methods being used by Revenue Canada in determination

of which Management Company expenses are eligible for a profit mark-up.

In other business, the Board also learned that a brief on Pre-Tax Retirement would be presented to the Task Force on Pension Reform on October 13th. This multi-professional committee, comprised of the CDA, CMA, CICA and CBA, was initiated and chaired by CDA.

Constitution & By-Laws

The Board approved the adoption of By-law No. 1, as amended September 23, 1983. This contains a number of recommendations that were considered as a result of a request from governors, council chairmen and other interested parties for input into the present document. The revised document will be available in the near future.

Information Services

A proposal for a Dental Awareness Program was discussed by the Board and this will be expanded to provide information on recent American Dental Association experience. It was stressed that any such programs require clearly defined target groups and specific objectives if such action is to produce tangible results.

Editorial Board

The Board approved that the distribution of the CDA Journal to non-members without charge be discontinued. The decision was based on the Journal's importance as a member service. It was felt this service loses much of its value when it is distributed to all dentists across the country.

CDA/CSA Certification Program

The Governors approved implementation of a voluntary dental materials certification program operated by the CSA on behalf of the

Association. This was done with the understanding that no CDA funds will be required to initiate or maintain this program.

Symposium "The Use of Mercury and Amalgam in Dentistry"

The Council on Dental Materials and Devices submitted the results of a symposium which was held on the use of mercury and amalgam in dentistry. This event was held to investigate some claims on possible toxicity of dental amalgam when used as a restorative material. Experts on the subject met in Ottawa to discuss this topic and the report is on page 811 of this issue.

Auxiliary Accreditation

The Governors approved that the

CDA Endorses use of silver copper amalgam

Continued from page 811

References

American Dental Association Council on Dental Materials, Instruments, Equipment Council on Dental Therapeutics. "Safety of Dental Amalgam," *J. Amer. Dent. Assoc.*, 106, 519-520, 1983.

CDA Council on Dental Materials and Devices "Hazards of Mercury Contamination in Dental Practice." *J. Cand. Dent. Assoc.*, 7, 320, 1979.

Innes, D.B.K. and Youdelis, W.V. "Dispersion Strengthened Amalgams." *J. Cand. Dental Association*, 29, 587-593, 1963.

Jones, D.W., Sutow, E.J. and Milne, E.L. "Survey of Mercury Vapour in Dental Offices in Atlantic Canada." *J. Cand. Dent. Assoc.*, 49, 378-395, 1983.

Council on Education be authorized to survey all components of auxiliary programs in dental assisting and dental hygiene in those provinces where the dental licensing board has the jurisdiction to license or register such auxiliaries when required, and where the instruction program complies with what is permitted by that province's dental licensing board.

Guidelines for the Control of Radiation in the Dental Office

The Board approved Guidelines for the Control of Radiation in the Dental Office, as presented by the Council on Health Care. The Council had received input into this document from provincial representatives and from a member of the specialty section on Oral Radiology. These Guidelines

will be published in the Journal and will be available to members on request.

Guidelines for Sterilization Procedures in Hospitals

The Board reviewed a draft document on Guidelines for Sterilization Procedures in Hospitals. This document will be expanded and revised further for final approval by the Governors in April, 1984.

Other Business

The Board approved the proposal by the Quebec Dental Surgeons Association that CDA invite the Federation Dentaire Internationale to hold its congress in 1991 in Montreal, Quebec. This matter has been referred to the Executive Council for action.



Executives of the Canadian Dental Hygienists' Association posed following their Annual Luncheon at the Four Seasons Hotel in Vancouver. Left to right are: Trudy McAvery, Secretary, Mary Pelletier, President, Linda Berry, Past-President, and Laura Mowat, President-Elect. (Missing when the photo was taken were: Audrey Newcombe, First Vice-President and Shirley Milroy, Treasurer.)



Members of the Executive of the Canadian Dental Assistants' Association posed for this photograph following one of their major functions in the Hotel Georgia. They are, left to right: Marlane Paquin, 1983 Convention Convenor; Maureen Symmes, Certification and Education Chairperson; Barbara Peterson, Past-President; Suzanne Mader, President; Carole Davis, Vice-President; Elaine Wesley, Executive Director, and Diana Hiebert, Parliamentarian.

Convention Glimpses

1. New CDA President, Dr. Robert N. Hicks and his wife Robin, were heralded into the Pacific Ballroom of the Hotel Vancouver by fanfare and "Captain George Vancouver", right (back to camera) during the "President's Extravaganza."

2. At one of the many Vancouver receptions, W. Ross McIntyre, Secretary-Treasurer of the Manitoba Dental Association, left, chats with Frieda Anderson, Kenora, Ont., centre, and Mrs. Sandra Deziel, Executive Secretary to CDA Executive Director, Hubert Drouin.

3. Bands, "Captain George Vancouver" and animals, paraded through the centre of the Pacific Ballroom of the Hotel Vancouver during the "President's Extravaganza."

4. CDA Communications Director Doris Goodwin left, enjoys Maritime repartee with Drs. Toby Gushue and Ray Wenn during an exhibitors' reception at the Hyatt Regency Hotel in Vancouver.

5. A Western group (and one Easterner) chatted at this Installation and Awards Luncheon table. They are, from the left: Drs. Jack Hornbrook, E. Roy Eburne, and W. Douglas McGinnis, all of Vancouver; W.M. Taskey, Edmonton, Dick Welsh, Vancouver, and Brigadier-General J.N. Wright, Director-General of the Canadian Dental Services, Ottawa.

6. Some B.C. and Ontario delegates mingled at this Installation and Awards Luncheon table. They are, left to right: Dr. Gordon Potter and Shelley Kerr, both of Vancouver; Drs. Wayne Wright of Guelph, Ont., Murray Pearson of Cambridge, Ont., Bill Alto, of Vancouver, J.C. Tsafaroff, Department of Veterans Affairs, Toronto, John Hardie, of Ottawa, and Peter Bradley of Victoria, B.C.

7. We made it! Two eager competitors in the Sunday morning Funn Runn in Vancouver's Stanley Park strain to the finish line. Dr. Dave McLeod, of Golden B.C. is the enthusiastic finisher on the right.

8. Kristi Wells and sister Angela, both of Vancouver, decked out in spectacular style, promoted the Vancouver restaurant tour of the Convention for hygienists, assistants and spouses, by parading in the Convention registration area.

9. Among the most attractive of those attending the CDA Installation and Awards Luncheon were this group. They are, from the left: Mrs. George Beagrie, Mrs. Olga Crawford (partly hidden), Mrs. Diane Drouin, Mrs. Ted Ramage, Mrs. Diane Markey, Mrs. Tess Williams and Mrs. Doris Thompson.

10. Sparking Las Vegas-style showgirls were one feature of the entertainment provided during the CDA "President's Extravaganza" at the Hotel Vancouver on Tuesday evening, Sept. 27.

11. Smiling after enjoying the Installation and Awards Luncheon on Tuesday, Sept. 24 was this Québec group of dental association executives. From left, they are, Drs. Pierre Y. Lamarche, Director General and Marc Boucher, Président, of l'Ordre des Dentistes du



Québec and Dr. Michel Jahjah, chairman of the organizing committee for the April 1984 conjoint Convention of the ODQ and the CDA in Montréal.

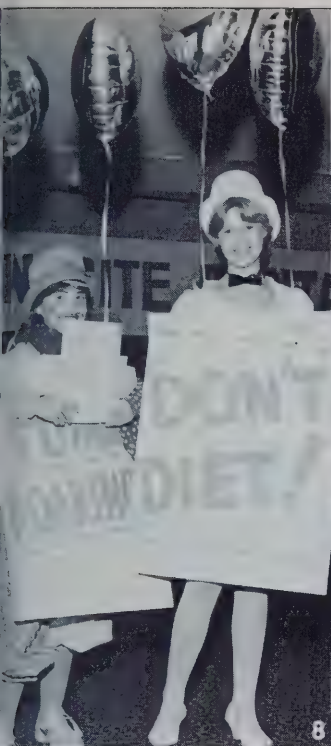
12. Interest and business in the exhibit areas in the Hyatt Regency Hotel was quite brisk and satisfying to exhibitors, they reported.

13. These ladies and gentleman enjoyed the fare at the Installation and Awards Luncheon. They are, from the left: Dr. David Miller, Nelson, B.C.; Wendy Davis and Lenore Yeo, both

of Vancouver; Christy Fach, North Vancouver; Robin Hicks, and Shirley Schmid, of West Vancouver, and Mary Thompson, of Calgary.

14. This table was Western territory. They are, from left: Drs. Z.J. Keresztes, Nanaimo, B.C.; Lino Vanzella, Squamish, B.C.; Allan Pastro, Vancouver; Anthony C.W. Chan, Vancouver; Kevin Kang, Kamloops, B.C.; Ashok Varna, Paul River, B.C.; Alnoor Somji, North Vancouver; Sam Kherani, Calgary; Noorallah Manji, Edmonton, and Brian Goldenberg, West Vancouver.

Vancouver ~ 1983



1. Le nouveau président de l'ADC, le Dr. Robert N. Hicks et son épouse Robin, sont escortés vers la salle de bal "Pacifique" de l'hôtel Vancouver, par l'orchestre et le "Capitaine George Vancouver", à droite, (dos tourné à la caméra) durant l'Extravaganza du président.

2. A une des nombreuses réceptions à Vancouver, W. Ross McIntyre, Secrétaire-trésorier de l'association dentaire du Manitoba, à gauche, cause avec Frieda Anderson, Kenora, Ontario, centre, et Madame Sandra Deziel, secrétaire-exécutif du directeur-exécutif de l'ADC, Hubert Drouin.

3. Des ensembles musicaux, le Capitaine George Vancouver et des animaux parodent au centre de la salle de bal "Pacifique", à l'hôtel Vancouver, durant "l'Extravaganza" présidentielle.

4. Le directeur des communications de l'ADG, (à gauche), Doris Goodwin, goûte l'humour des Maritimes, en compagnie des Drs. Toby Gushue et Ray Wenn, à l'occasion d'une réception offerte par les exposants, à l'hôtel, Hyatt Regency, à Vancouver.

5. Un groupe de "Westerners" (et un représentant de l'est) cause, au lunch d'intronisation et

récompenses. De gauche à droite: Les Drs Jack Hornibrook, E. Roy Eburne, et W. Douglas McGinnis, tous de Vancouver; W.M. Taskey, Edmonton, Dick Welsh, Vancouver, et le Brigadier-Général J.N. Wright, Directeur-Général des Services Dentaires Canadiens, Ottawa.

6. Des délégués de l'Ontario et de la C.B. échangent leurs vues au cours du lunch d'intronisation et des récompenses. De gauche à droite: Dr. Gordon Potter et Shelley Kerr, de Vancouver, les Drs Wayne Wright de Guelph, Ontario, Murray Pearson de Cambridge Ont. Bill Alto, de Vancouver, J.C. Tsafaroff, Département des Affaires des Vétérans, Toronto, John Hardie, Ottawa et Peter Bradley de Victoria, C.B.

7. Nous avons réussi! Deux fiers compétiteurs de la course de dégourdissement, dans le parc Stanley, de Vancouver, se traînent vers la ligne d'arrivée. Le Dr. Dave McLeod, de Golden C.B. est l'enthousiaste "arrivant" à droite.

8. Kristi Wells et sa soeur Angela, de Vancouver, affublés de costumes époustouffants invitent les hygiénistes, les assistantes et les épouses au tour des restaurants de Vancouver, en parodant dans la salle d'inscription.

9. Parmi les groupes les plus attrayants du lunch d'intronisation et des récompenses, on remarque celui-ci. De gauche à droite: Madame George Beagrie, Madame Olga Crawford (partiellement cachée), Madame Diane Drouin, Madame Ted Ramage, Madame Diane Markey, Madame Tess Williams et Madame Doris Thompson.

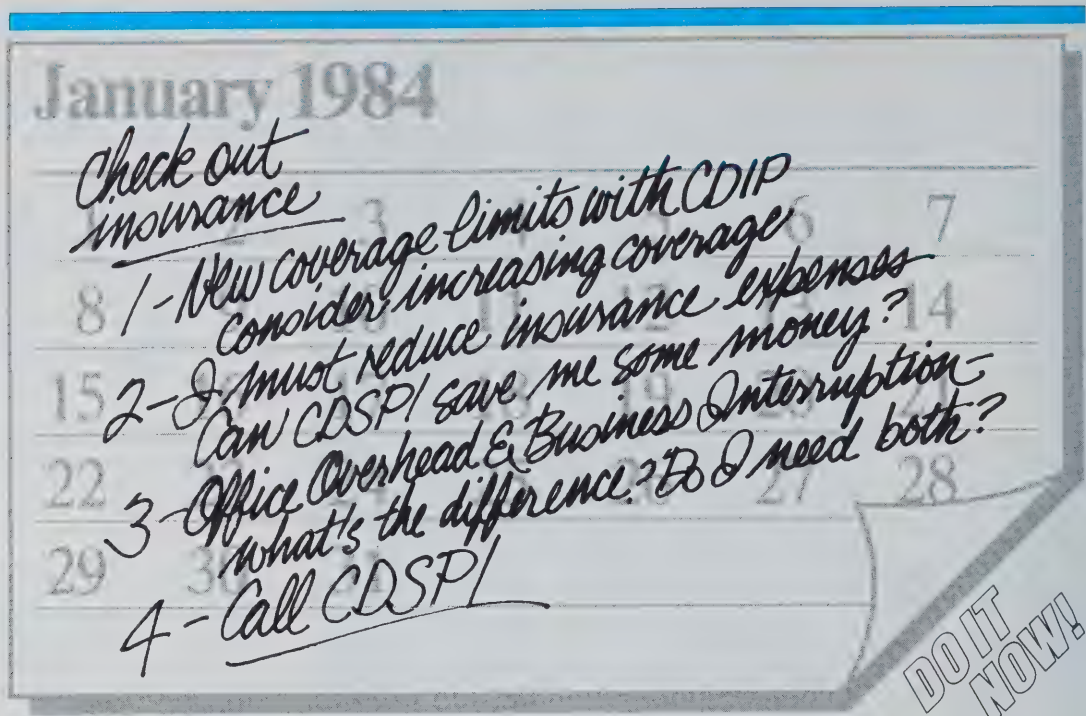
10. Étincellantes artistes, style Las Vegas. C'était un des numéros du spectacle "Extravaganza du Président" de l'ADC, à l'hôtel Vancouver, mardi soir, le 27 septembre.

11. Souriant d'aise, après le lunch d'intronisation et des récompenses, mardi, le 24 septembre, on retrouve, ici, les officiers de l'association du groupe québécois. De gauche à droite: Drs Pierre Yves Lamarche Directeur Général et Marc Boucher président de l'Ordre des Dentistes du Québec et le Dr Michel Jahjah, président du comité d'organisation du congrès conjoint de l'Ordre des Dentistes du Québec et de l'ADC, à Montréal.

12. On rapporte, que l'intérêt porté par les délégués aux exhibits a été soutenu et les affaires bonnes, à la grande satisfaction des exposants.

13. Ces dames et messieurs sont heureux de leur sort, au lunch d'intronisation et des récompenses. De gauche à droite: Dr David Miller, Nelson C.B., Wendy Davis et Lenore Yeo, tous deux de Vancouver, Christy Fach, Vancouver-Nord, Robin Hicks et Shirley Schmid, de Vancouver-Ouest, et Mary Thompson, de Calgary.

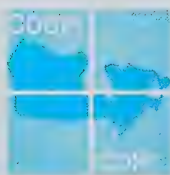
14. Cette table est "territoire de l'ouest". De gauche à droite: les Drs. Z.J. Keresztes, Nanaimo C.B., Lino Vanzella, Squamish C.B., Allan Pastro, Vancouver, Anthony C.W. Chan, Vancouver, Kevin Kang, Kamloops, C.B., Ashok Varna, Paul River C.B., Alnoor Somji, Vancouver-Nord, Sam Kherani, Calgary, Noorallah Manji, Edmonton et Brian Goldenberg, Vancouver Ouest.



Year end is a time for taking stock of the present and planning for the future. CDSP/ would like to help you with your planning by reminding you of the importance of evaluating and updating your insurance program annually.

We have introduced a number of changes effective January, 1984, which will help you to protect your family and your future.

Now is an excellent time to take a close look at your coverage, because any necessary improvements can still be effected for early in the year.



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Modern Management Concepts for Dental Practice (A Perspective on Management)



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ABSTRACT

Most dentists manage their practices without the benefit of management training and are guided in their management approach by faulty assumptions. A conventional management method is reviewed in light of worker needs and manager's behaviors. The incompatibility of conventional management and worker needs calls for a "modern" approach to management. Managers who habitually apply the conventional style are urged to seek retraining for a more enlightened and effective approach so that the dental office can be a pleasant and rewarding place in which to work.

Dental practices provide a scene where management structures range from detailed and controlled organizations to unstructured, informal workplaces. Management of the business and its personnel is accomplished by innate ability, skills acquired through trial and error as well as sporadic training and insights over the years. Few dentists have received formal training in management. My contention is that dental office management is in conflict with what is known today about effectively working with others. Employee needs and motivational factors are overlooked which leads to dissatisfaction, reduced employee contribution to the organization and turnover.

It may be some consolation to know that general business consultants report a similar pattern in organizations with whom they consult and study. In this article, information will be provided that should aid your personal appraisal regarding your interest in knowing more about management and determining your tendencies as a manager. The modern concepts referred to are intended to be characteristic of contemporary styles that reject tradition-

SOMMAIRE

La majorité des dentistes gèrent leur cabinet sans posséder les avantages d'une formation en gestion, guidés seulement par de fausses suppositions. Le présent article fait état d'une méthode conventionnelle de gestion en tenant compte des besoins du travailleur et de l'attitude du gestionnaire. Etant donné que la gestion conventionnelle et les besoins du travailleur sont souvent incompatibles, une approche "moderne" de la question s'impose. Le gestionnaire conventionnel est donc incité à prendre des cours en gestion afin d'acquérir une méthode qui soit éclairée et efficace afin de faire du cabinet dentaire un endroit où il est agréable et satisfaisant de travailler.

ally accepted or sanctioned forms and emphasize individual experimentation and sensibility.

In health professions and especially dentistry, it is a common occurrence for young managers to be put into positions of managing others before they have accomplished personal development in their own field of expertise. The quest to continually develop in clinical areas has, at best, relegated development of managerial skills to a secondary level. In my years of managing in private practice and university programs, I have studied how to organize and manage a practice. Additionally, I have devoted time to academic study of theory and research.

ASSUMPTIONS

Understanding what we believe about ourselves and others in the work setting is an important activity. Behavioral scientists claim that all of us make assumptions about people as to what they are like and what their

inherent nature is. Some of us imply that our assumptions are true and do not expressly state the details. Others are explicit and ably express their assumptions.

In our relationships with others, each of us has a more or less consistent set of assumptions that we make of other people and of ourselves. Our philosophy (or style) may be inferred by observing us as we relate to others.

Allport¹ postulates that there are three distinct models to describe the nature of man. First, there is a **reactive being** who responds to stimuli in his physical environment and is incapable of willing anything to happen. The second is a **reactive being in depth** who behaves through means of which he is unaware. He reacts to drives and instincts. The third is a **being-in-process-of-becoming** who is capable of becoming good and sufficient, provided there is a climate which supports growth.

Allport's models provide distinct forms for the differing assumptions about man. They are not scientifically verifiable but appear to form the basis for all human relations. The research of Harvard Professor Chester Barnard led to his conclusion that "purpose is defined more nearly by the aggregate of action taken than by any formulation of words."² He showed that organizational values and purposes are determined more by actions of executives than by their pronouncements.

Each of us puts forth our philosophy on the nature of man by our beliefs and actions. It can be deduced even though it may not be openly expressed. If we believe that man is a reactive being, we will tend to relate to other people in terms of influence, power, rewards, reinforcement, manipulation and conditioning. If we believe that man is a reactive being in depth, we will try to discover motives behind other's behavior, attempt to gain insight in discussion with others and seek reasons behind our behaviors, feelings, thoughts, attitudes and values. If we believe that man is a being-in-process-of-becoming, we would relate to others in terms of nurturance and development. We would view it essential to foster a climate in which growth can occur in others and ourselves. Because we do hold beliefs that influence our actions, there is great value in making one's own assumptions explicit. Expressed assumptions can then be acknowledged, reactions of others and ourselves can be better understood.

Early structure in management took substance when work and people were envisioned as a parallel with the military. Sadly, business consultants³ report that the military resemblance today provides the basis for most management structure — give an order and get instant compliance. This system of management fails when circumstances other than a "regiment under fire" are considered. Sociologists, psychologists and business executives have offered their respective conclusions on management. The work of Douglas McGregor in the 1950s has proven significant and lasting although often misinterpreted and exaggerated. His theories described worker and management behaviors in two distinct categories.

CONVENTIONAL MANAGEMENT PRACTICES

McGregor and informed analysts have viewed his theories as a basis for understanding the importance of worker needs fulfillment and management behaviors. In a 1957 presentation, the MIT professor revealed that contemporary studies on the nature of man were leading researchers to conclude that "under proper conditions, unimagined resources of creative human energy could become available within the organizational setting."⁴

McGregor stated that the conventional conception of management was embodied in his "Theory X." He stated, "management is responsible for organizing the elements of productive enterprise — money, materials, equipment, people — in the interest of economic ends." In working with people, management directs their efforts, provides motivation and controls their actions so as to fulfill organizational needs. If this intervention does not occur, people would be passive and resistant to organizational goals. Further, this proposition states that the average man dislikes work and will avoid it if at all possible. The typical worker desires direction, shuns responsibility, is lazy and seeks security. At that time, McGregor indicated his Theory X was "in fact a theory which materially influenced managerial strategy in a wide sector of American industry."⁵ It relies heavily upon external control over human behavior. Many managers reject the above stated proposition but their behaviors indicate substantial adherence to these tenets. McGregor supported the position that the whole character of the organization was determined by management's assumptions about controlling its human resources.

Theory X management has conceived a range of options between two extremes to implement actions. Management that utilizes coercion, disguised threats, close supervision and tight control on behavior is said to be "hard" or "strong." Problems arising from the "hard" approach center around the probability that when force is applied upon workers, it generates a counterforce, reduced output, antagonism, protectionist actions (union formation) and subtle digression from organizational goals. The opposite approach is typified by management behavior that is permissive, grants workers requests and strives to achieve harmony. The intent is that workers will become docile, flexible and accept direction. This "soft" or "weak" approach leads to relinquishing authority. It may establish harmony but often leads to reduced and indifferent output. Observers state that workers take advantage of the soft approach. They are conditioned to expect more and they give less and less.

Based on findings by social scientists of that time, the set of beliefs associated with Theory X was challenged. Evidence suggested that human behavior was as management viewed it to be, except that such behavior was in response to the organization, management philosophy and policy rather than a consequence of man's inherent

nature. McGregor claimed “the conventional approach of Theory X is based on mistaken notions of what is the cause and what is the effect.”⁴

EMPLOYEE NEEDS

Based on the work of his contemporary, Abraham Maslow, McGregor was cognizant of motivation. McGregor describes man as a wanting animal. As soon as one of his needs is met, another surfaces. The process is continuous from birth to death. Man’s needs are organized in levels and described as a hierarchy of needs or importance. To simplify, only three levels will be considered for all of man’s needs; physical, social and ideal needs.⁶

Motivational elements of a higher level cannot come into play until lower level needs are fulfilled. Thus, when man has been hungry for a time, the expression “man lives by bread alone, when there is no bread” has significance. When man has his needs for food met and he is not hungry, he no longer works for bread alone. As socio-economic levels progressively rise and physical needs are met, the work force has reduced potential for motivation through lower level needs. Satisfied needs are not motivators of behavior. The conventional concept of management (Theory X) overlooks this fact. When you consider something as basic as your need for air, lest you be deprived of air, it has no significant influence on your behavior. Additionally, needs in the physical group other than “bread” are for shelter, clothing, physical comfort, pleasant workplace, security, adequate pay, protective rules, etc. In most Theory X situations, there is reason for employees to feel threatened or insecure. Arbitrary actions, favoritism, inconsistent application of policy and discrimination leave employees with needs of security or safety that are powerful motivators.

When employees’ physical needs are met and they are no longer insecure, social needs become significant motivators of behavior — for belonging, acceptance by fellow workers, for giving and receiving friendship. Even though managers are aware of these needs, they often assume such needs represent a threat to the organization. Contrary to managers’ assumptions, studies have shown that closely associated work groups may be far more effective, under certain conditions, than a similar number of individuals functioning separately. Yet, managers resist actions by employees to form group associations of workers and design controls that direct employee behaviors away from fulfilling social needs. As organizations thwart fulfillment of worker social and possibly security needs, resistant and antagonistic behaviors become evident. McGregor holds that “this behavior is a consequence, not a cause.”⁴

Before increasingly higher level needs can become motivators, an assessment of physical and social needs should reveal their general fulfillment. Ideal needs relate to one’s self-esteem, reputation and quest for self-fulfillment. In

conventionally managed organizations, even the more basic needs of the ideal level are rarely satisfied. Employees struggle to attain self-confidence, independence, achievement, competence, knowledge and continue to seek status and recognition along with the respect of fellow workers. These needs become significant only after lower level needs are satisfied and, once they become important, they are sought endlessly.

Since motivation is a significant means of positively influencing behavior and since satisfied needs are not motivators, a review is in order to determine the compatibility of conventional management (Theory X) and fulfillment of employee needs. We all understand that a person who suffers from a dietary deficiency is sick. Likewise, the deprivation of physical needs in the hierarchy produces behavioral consequences. The same can be stated for social and ideal needs except it is more difficult to discern. A person employed in an unstable environment, deprived of interpersonal relations and acceptance of others or unable to establish a suitable reputation is “sick” in the behavioral sense as one nutritionally deprived may manifest symptoms of rickets or scurvy. This “sickness” will display symptoms, behavioral consequences, that could be mistaken for laziness, hostility or refusal to accept responsibility. These **symptoms** of illness reflect deprivation generally of social and ideal needs.

After a substantial meal, one’s appetite for food is lost. Similarly, workers who have had their lower level needs met are no longer motivated to fulfill those needs. Thus, the conflict surfaces between needs met and management approach. Management is vexed as production lags when pay is good, benefits are outstanding and employment is assured. Management and socio-economic development have provided for the lower level needs. This has heightened employees awareness for their social and ideal needs. Management continues to center on meeting lower level needs and finds that its tools designed to motivate — rewards, promises, incentives and threats — are ineffective. As social and ideal needs are thwarted in the workplace, pressures escalate for increased salary to partially fulfill thwarted needs with material goods outside of the organization.

Management by direction and control is ineffective when motivating people whose needs are social and ideal. Regardless of whether the approach is hard or soft, management by direction and control fails to motivate behavior. It fails because direction and control are useless means of inducement for people whose physical needs are reasonably met and who now seek self-esteem, reputation and self-fulfillment.

ANOTHER WAY (MODERN MANAGEMENT)

To counter the incompatibility of conventional concepts of management and the hierarchy of needs, McGregor proposed “Theory Y,” a modern form of management. Basic to Theory Y is the fact that “manage-

ment is responsible for organizing the elements of productive enterprise — money, materials, equipment, people — in the interest of economic ends.”⁴ By nature, people are **not** passive or resistant to organizational needs. They have become so as a result of their experience in organizations. The motivation, potential for development, capacity for assuming responsibility and readiness to direct behavior towards organizational goals are all present in people. Management’s role is to develop methods of operating that allow people to achieve their own goals and direct their own efforts toward organizational ends. This form of management facilitation requires “creating opportunities, releasing potential, removing obstacles, encouraging growth and providing guidance.”⁴

Managing by tenets of modern, enlightened management (Theory Y) does not require abdication of management, lowering of standards or other strategies associated with the soft approach of Theory X. Rather, opportunities exist to participate more meaningfully with employees in attainment of both their goals and organizational goals. Theory Y involves significant use of self-control and self-direction that can result, if appropriately channeled, in heightened achievement of organizational goals. It assumes that in the working population there is significant capacity for imagination, ingenuity and creativity for the solution of organizational problems. Motivators of behavior are abundant through the social and ideal needs when modern management strategies are implemented. These needs appear to be insatiable.

Changes in society have precipitated a reappraisal of what we do, how we do it and for whom. Technologic advances have elevated virtually everyone’s needs focus, attitudinal changes have altered relationships and competitive, creative entrepreneurs continue to exert economic pressure. These conditions stimulate a desire to search for solutions and, hopefully, an abandonment of dentistry’s laissez-faire attitude. Outside forces have shown themselves to be formidable and dentistry’s protective shield no longer provides safe haven.

Modern management considers the research and conclusions of Herzberg⁷ by acknowledging there are certain givens (conditions) that are understood to be found in the workplace which, when present, simply maintain people. When these givens, such as salary, working conditions, company policy and advancement, are lacking, employees are “demotivated.” The replacement of any of these lost conditions only returns employees to the maintenance level but does not provide motivation. When the manager focuses with workers upon job responsibility, the work itself, recognition and achievement, “an inner reservoir of creative energy” becomes evident as employees show a need to express themselves through job activity.

Modern management sees and hears that “something is happening to people now — a change of mind . . . it is disrupting the old truisms of government and politics in

many ways, both subtle and dramatic. It has altered the flow of power: between men and women, parents and children, doctors and patients, teachers and students, employers and employees, experts and lay people.”⁸

Modern management understands that the excellent businesses are those which are fiscally sound. They focus in a balanced effort upon economic health, serving customers and following long range objectives. Profit is necessary to exist — to stay in business. It is needed and should be the result of appropriately directed effort, but “it is not why you (the company) exist.” Research has shown that organizations “whose only articulated goals were financial did not do nearly as well financially as companies that had broader sets of values.”⁹

Modern management desires to implement creative work relations that bring workers and managers into problem-solving circles. Drucker reported recently that “workers have little difficulty adapting to automation (change). But their supervisors do . . . practically all supervisors had to be moved to traditional plants . . . (meetings with blue-collar workers) . . . threatened the supervisors’ authority and self-image . . . supervisors resisted strongly (as the worker) knows more about the job than anyone else . . . changes . . . diminish the authority and reduce the control of the supervisor and transfer power to the worker.” Workers have demonstrated they can take responsibility, exercise control and initiate action. Drucker’s conclusion is that training is needed for a different role for the supervisor (manager or dentist). “We need a stronger, more confident, more responsible . . . supervisor (dentist). We need to do what IBM did 25 years ago when it determined that the job of its ‘managers’ was to bring out and put to work the strengths of the work force: competence and knowledge and capacity to take responsibility. This is not being permissive; on the contrary, it is being demanding . . .”¹⁰

The goal of implementing the several strategies mentioned above that are part of modern management is to provide a workplace where all persons involved find rewards for their efforts, personal fulfillment and a resultant synergistic output. “Whenever even two people start giving to each other and working for each other, these qualities and rewards immediately appear — greater mutual benefit, greater ease and greater individual development . . .”¹¹ Modern management requires people to utilize innovative and creative approaches.

CONCLUSIONS

It is my perception after observing managers and interviewing employees that the prevailing management concept resembles the Theory X variety. Observers in the study of management indicate “the most important drawback of the Theory X approach to management is not its inhuman view of man, but the fact that it does not work well.”¹² The results are “coercion brings resentment; lack

of trust brings alienation and detachment; threat of punishment brings retaliation; overcontrol brings obedient, robotlike behaviors." The above behaviors lead employees to respond in ways that support the manager's assumption of workers — a self-fulfilling prophecy. When McGregor proposed his theories, he suggested that managers should study their basic assumptions about human behavior. He advocated that these assumptions should be "consciously recognized, tested and evaluated."¹²

As evidenced by the mounting number of traditional organizations that are "losing out," conventional methods of management no longer work well. A change from conventional managerial behaviors to modern ones is seen all about us. Contemporary healthy human behavior is typified by independent, outgoing and optimistic people who are responsible for themselves, not easily surprised and who are responsive to change.¹³

The movement to a new role of the modern manager-dentist requires more than knowledge or study. It requires reordering one's assumptions to allow managerial behaviors that are perceived by others to be nurturing and synergistic. The retraining from a conventional manager to a modern manager involves significant learning that addresses one's feelings and understanding simultaneously. This personal involvement requires genuine self-initiation resulting in major differences in behavior, attitudes and possibly even the personality of the learner. Such changes will be perceived/assessed through the process as to whether the desired results are being achieved. This experiential learning should lead to "a continuing openness to experience and an incorporation into oneself of the process of change."¹⁴

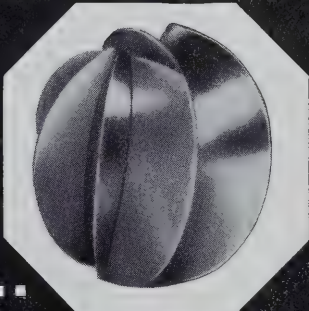
This dissertation may leave some with feelings of despair about their desire or ability to adapt to a changing future in management. Some will deny the need for change and not worry. There are communities where parochialism may delay the impact of changes that appear inevitable. Dentistry is a demanding professional discipline with continuing requirements for excellence in clinical skills and annual concerns for its profitability. These two factors may supersede the needed quest for retraining in management. I would hope not. Training sources are abundant and encouragement is given that "assumptions can be changed" through training. Specialized training in management "not only makes people aware of the assumptions under which they operate but also helps them to learn and to embrace scientifically verified principles for effectiveness in production under circumstances that promote mentally healthy behavior."¹⁵

REFERENCES

1. Allport, W. W., Psychological models for guidance. *Harvard Educational Review*, 32: 373-381, 1962.
2. Peters, T.J. & Waterman, R. H., Jr., *In search of excellence*, New York, Harper & Row, 1982, p 97.

3. Peters, T. J. & Waterman, R. H., Jr., *In search of excellence*, New York, Harper & Row, 1982, p 90.
4. McGregor, D. M., The human side of enterprise, "Adventure in thought and action," *Proceedings of the Fifth Anniversary Convocation of the School of Industrial Management*, MIT, Cambridge, Apr 1957, p 23-30.
5. Peters, T. J. & Waterman, R. H., Jr., *In search of excellence*, New York, Harper & Row, 1982, p 95.
6. Eddy, W. B. et al, ed., *Behavioral science and the manager's role*, La Jolla, University Associates, 1976, p 175-178.
7. Boshear, W. C. & Albrecht, K. G., *Understanding people: models and concepts*, La Jolla, University Associates, 1977, p 174-177.
8. Ferguson, Marilyn, *The aquarian conspiracy: personal and social transformation in the 1980s*, Los Angeles, J. P. Tarcher, Inc., 1980, p 189.
9. Peters, T. J. & Waterman, R. H., Jr., *In search of excellence*, New York, Harper & Row, 1982, p 103.
10. Drucker, P. F., Twilight of the first-line supervisor?, *The Wall Street Journal*, June 7, 1983.
11. Ferguson, Marilyn, *The aquarian conspiracy*, Los Angeles, J. P. Tarcher, Inc., 1980, p 215.
12. Boshear, W. C. & Albrecht, K. G., *Understanding people*, La Jolla, University Associates, 1977, 169-173.
13. Fordyce, J. K. & Weil, Raymond, *Managing with people: a manager's handbook of organization development methods*, Reading, Mass., Addison-Wesley, 1971, p 9-14.
14. Knowles, Malcolm, *The adult learner: a neglected species*, ed 2, Houston, Gulf Publishing Co., 1978, p 9, 102.
15. Blake, R. R. & Mouton, Jane S., *The new managerial grid*, Houston, Gulf Publishing Co., 1978, p 1-8.

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Briefly —

Newfoundland dentists appear to be especially interested in the manpower question, but practitioners in the other three Atlantic provinces are equally concerned.

The Atlantic Provinces Dental Manpower Survey which was sent out earlier this year to members of the provincial dental associations in the Maritimes, garnered a tremendous response from maritime practitioners.

Of the 125 surveys sent out in Newfoundland, 92 per cent of them were returned, a total of 115. Response to the Survey in New Brunswick, Nova Scotia and Prince Edward Island was also high. New Brunswick and Prince Edward Island practitioners returned 72 per cent of the survey questionnaires sent out, while in Nova Scotia the response was only slightly lower, with 70 per cent being returned.

The data gathered in the Survey has been tabulated by Dr. John Isenor at Dalhousie University, and a first draft report has been completed. Representatives from the four Atlantic provinces will be meeting to discuss this draft in the near future, and a final draft will be prepared.

The Ordre des Dentistes du Quebec recently detailed the regulations in that province regarding individual advertising in dentistry.

The regulations allow the dentist to include the following information on his professional card or sign:

- his name, and where applicable, that or those of his partners;
- his profession;
- his specialty (recognized by the Order)
- his academic titles;
- the address of his consulting room, his office hours and regular

- and emergency telephone numbers;
- the symbol of the Ordre or of dentistry;
- the expression "Dental Clinic" or "Dental Centres" if that expression is accompanied with his name or with the name of any of his partners, where applicable.

Information that is "not manifestly allowed" on a professional card or sign under the regulations:

- General Dental Service
- General Dental Practice for adults and children;
- Dental Office and Dental Clinic and Dental Centre with the name of a street or a city following that expression;
- the graphic symbol of the Metro in Montreal, (although the Metro station closest to the consulting room may be mentioned in the address.)

Advertising which is **inadmissible** under Quebec regulations is any advertising at all on restaurant menus, cardboard matches, pencils, toothbrushes, bingo cards, calendars, plastic covered directories or "other printed material of the same nature."

For further information on this regulation, contact the Ordre des Dentistes du Quebec.

A newsletter designed for dentists' patients in Quebec was made available to Quebec practitioners earlier this fall.

The newsletter, which was designed as a communications tool between dentist and patient, is hoped by the Ordre des dentistes du Québec, to aid practitioners in establishing a close consulting relationship with their patients.

The newsletter is available in both official languages at a small cost, from the Ordre des dentistes du Québec.

Dr. Irwin Margolese is the new President of the Federation of Dental Societies of Greater Montréal, which is composed of the top executives

from the three Montreal dental societies, La Société dentaire de Montréal, Montréal Dental Club and Mount Royal Dental Society.



Dr. Irwin Margolese

In addition to his Federation appointment, Dr. Margolese is active in other dental organizations. He is President of the Mount Royal Dental Society and Director of Continuing Education of the Canadian Analgesia Society; he is the Canadian consultant to "Clinical Research Associates", Provo, Utah; and he has just completed his term as Governor of the CDA and as Administrator of the Quebec Dental Surgeons Association. Dr. Margolese also maintains a general practice in Montreal and is serving as a clinical teaching assistant in the departments of dentistry at the Jewish General Hospital and McGill University.

Also serving on the Federation's executive board are Dr. Jean-Guy Lahaie, President of the Société dentaire de Montréal, and Dr. David Blair, President of the Montréal Dental Club. Other members include Drs. Herb Borsuk, Arthur Greenspoon, André Huot, Robert Miller, Tom Oliver and Pierre Rochon.

The Canadian Association of Oral and Maxillofacial Surgeons recently elected new officers for two-year terms.

The Association's new President is Dr. Pierre Surprenant of Sherbrooke, Quebec. He succeeds Dr. Murray

Mickleborough of Edmonton, Alberta, who becomes past-President. President-elect is Dr. Ronald Warren of Edmonton.

Dr. Aron Gonshor of Montreal, Quebec, was elected Secretary of the Association, and Dr. Bernard Lyons of Windsor, Ontario is the new Association Treasurer.

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Two University of Toronto researchers from the faculty of dentistry have invented an antimicrobial dental varnish.

Drs. Tom Balanyk, a graduate student and James Sandham of the faculty, invented a varnish designed to release antimicrobial agents at a controlled rate in the mouth over a period of approximately one week. The purpose of the varnish is to eliminate streptococcus mutans or other selected dental or periodontal pathogens from the human mouth.

Application has been made to the Health Protection Branch of the federal Department of Health and Welfare to undertake clinical trials of two forms of the varnish.

Developing the products for commercial use is being undertaken by the University of Toronto Innovations Foundation.

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Dental researchers, take note!

The Ernest C. Manning Awards Foundation annually rewards Canadian innovators who have created and promoted a new concept, process or product which is beneficial to Canada and society. This national, non-profit organization is funded by contributions from individuals and corporations from across Canada. Eleven trustees residing in communities throughout the country are members of the Foundation, and six people sit on its selection committee.

Over 100 nominations — all deemed impressive by the committee — were received for the Foundation's 1983 national awards program. This year's winner of the \$75,000 cash award was Kenneth Kasha of Guelph, Ontario, who was recognized for his work in

the development of food crop yields to help feed a hungry world. His technique for breeding new strains of barley in half the time previously required has placed Canada in the spotlight of world plant genetics.

Further information on the awards program can be obtained by contacting George Dunlap, Executive Director, Ernest C. Manning Awards Foundation, 2300, 639 — Fifth Avenue S.W., Calgary, Alberta (403/266-7571).

♦♦♦♦♦♦♦♦

The University of Western Ontario's Faculty of Dentistry has been reorganized.

The Faculty's departments have been discontinued, but the Divisions at the school have remained intact. A Division of Oral Biology has been newly created.

As part of the reorganization to better serve the needs of the faculty, four new positions in dentistry were also created. Dr. Ronald E. Jordan has been appointed Associate Dean for Clinical Affairs, Dr. David W. Banting is Associate Dean, Academic, Dr. John T. Hamilton is Assistant Dean, Research, and Dr. Gerald Z Wright is Assistant Dean in Continuing Education.

Several other events of note have also taken place at UWO this year, including the establishment of a Facial Pain Research Unit. The unit will be involved in both clinical and basic science research into this topic.

♦♦♦♦♦♦♦♦

Alberta dentist Dr. Earl Krebs is a really good scout.

Dr. Krebs, who has been in the scouting movement for 27 years, serving for 23 as a scoutmaster, has also been donating his dental services to Inuit communities in Canada's Arctic for the past 13 years.

The dental health of the Inuit in northern communities first came to his attention during a Boy Scout Jamboree in 1970, when he discovered that Inuit boys "needed dentistry badly."

Following the Jamboree, he con-

tacted the Northern Health Services in Edmonton and volunteered to go North once a year to provide free dentistry.

Since then he has spent six weeks a year working in 27 different Arctic locations.

♦♦♦♦♦♦♦♦

Experts representing 11 member countries of the World Health Organization (WHO) gathered at the University of British Columbia from July 4-10 to examine the development and future strategies of a new program for oral health. The UBC Faculty of Dentistry hosted the expert panel, chaired by Dr. G.S. Beagrie, Dean.

In addition to demonstrations, the meeting involved discussions with faculty members on a variety of topics, including the Performance Simulation Training System, which was first set up at UBC and, consequently, has had repercussions around the world. The second North American dental faculty, the University of Maryland in Baltimore, has just introduced the system to their 1983/84 dental students. UBC expects to exchange teaching tapes and techniques for undergraduates and continuing education students, using this system, as well as an exchange of faculty members.

The WHO's Sub-Group Expert Panel on Oral Health has developed a new Centre for Oral Care in the Chiang Mai Province of Thailand. Because of the importance of such a development, the Canadian International Development Agency financially supported this meeting at UBC. Participants on the Panel, in addition to Dr. Beagrie, who was representing Canada, were Dr. P. Baerum, Norway; Dr. J.S. Bulman, England; Dr. H.A. Burhani, Syria; Dr. B. Gomez Herrera, Venezuela; Dr. S.A. Hussein, Democratic Yemen; Dr. A. bin Johari, Malaysia; Drs. Y. Kawamura, D. Beach and M. Ishida, Japan; Drs. E.L. Reese and G. Gillespie, U.S.; Dr. A. Thaworn, Thailand; Dr. D.E. Barmes and Mrs. J. Sardo-Infirri, Switzerland.

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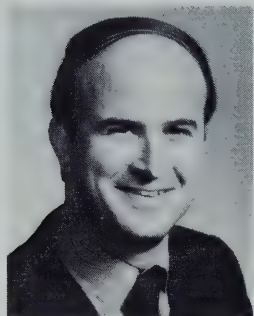
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A status report on dental implants



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Successful replacement of lost natural teeth by implanted prostheses would advance dental treatment significantly. Thousands of middle aged and elderly, edentulous patients with advanced residual ridge reduction, suffer from an inability to make do with the conventional complete denture service often confronting the profession with an insoluble predicament. Over the years, there have been well meaning and inventive dentists who have sought to circumvent such prosthodontic problems by prescribing dental implants. Regrettably the optimal combination of materials, designs, and implant techniques has never been developed and standardized, with the result that many patients have suffered unnecessarily from the application of such human experimentation without genuinely informed consent. The American Dental Association considers dental implants as experimental procedures, and the July 1978 issue of the JADA reported that the Bureau of Medical Devices' classification list of dental materials and devices by the Food and Drug Administration commission would allow the dental profession and manufacturers approximately 30 months in which to prove safety and effectiveness of endosseous implants. Since 1972, the ADA Councils on Dental Research and Dental Materials and Devices had published position statements on endosseous implants (JADA, June 1972, February 1974, and March 1975). The Councils considered these devices to be in the new technique phase and recommended that all alternative treatment modes be considered and discussed with the patient before selecting the use of an implant. If an implant is then selected for the protection of

both patient and dentist, the patient should be advised of the technique's limitations and that the degree of success of an implant is not known at this time.

In response to the FDA criticism, the U.S. National Institution of Health (N.I.H.) sought to develop a consensus on dental implant efficacy and usage. The NIH-Harvard Consensus Development Conference of 1978 attempted the establishment of guidelines for the use of various types of implants *already* in clinical use. A group of people involved with dental implants looked at retrospective clinical data provided by several clinicians. The recommendations published under the title *Dental Implants: Risk and Benefit* by the U.S. Department of Health and Human Services while clearly limited by the retrospective nature of the study, the diversity of opinion offered by the practising so-called implantologists, offered minimal clinical guidelines for implant use, while acknowledging the lack of well controlled scientific experimentation in the dental literature.

Implant techniques as practised on this continent clearly do not survive scientific scrutiny, and dentists will readily understand why Prosthodontic Departments in Canadian dental schools have limited their implantology teaching to a presentation of scientific facts, coupled with a strong reluctance to prescribe the technique clinically. While the above statements reflect a dissatisfaction with the bio-mechanical implications of the technique as applied to date, it is not meant to indict the possible use of Dental Implants as a therapeutic concept. Several health disciplines are committed to a constant search for better tissue and organ replacements, and clinical dentistry is no exception. But a conscientious and tenacious commit-

*Professor and Chairman, Department of Prosthodontics.

ment to research in the field of tooth and supporting alveolar bone replacement demands scientific methodology which has been lacking so far.

In recent years, several authors have speculated on the possibility that certain implant materials have a dynamic surface chemistry which could induce histological changes at the implant interface, which normally occur if the implant were not present. Clearly the clinical research objective is the introduction of an implant system which could reconcile i) the predictable behaviour of such a material in vivo, with ii) a technique of host site preparation which would not compromise such an objective, and iii) with a design for the implant which would withstand functional and nonfunctional forces in the long term.

An analysis of bone response to implants currently used by North American dentists suggests that such a system's objectives are not met, and that one of two events tends to

4,000 threaded, cylindrical pure titanium implants into mandibular and maxillary sites as well as tibial, temporal and iliac bones for various dental and orthopedic restorative procedures. All the titanium fixtures were implanted using a meticulous surgical technique aiming at a direct contact between living bone and implant. The interfacial zone between bone and implant was investigated using radiology, scanning electron microscopy (SEM), transmission electron microscopy (TEM), and histology. The SEM study showed a very close spatial relationship between titanium and bone. No wear products were seen in the bone or soft tissues in spite of implant loading tissues up to 90 months.

Brånemark attributes the success of his method to the development of interfacial osteogenesis. If osseointegration is in fact occurring, the Brånemark work is a dramatic improvement on the other metallic systems in use in North

This Article was prepared on behalf of the Association of Prosthodontists of Canada in response to a request from the Canadian Dental Association. It is based on the following 4 items:

1. Zarb, G.A., Bergmann, B. Clayton, J.A., and MacKay, H.F.: Prosthodontic Treatment for Partially Edentulous Patients Chapter 46, Page 559-563. C.V. Mosby Co. St. Louis, 1978.
2. Zarb, G.A.: Advanced residual ridge reduction: Alloplastic implants in prosthodontics. J. Canad. Dent. Assoc. 45:227-234, May 1979.
3. Cox, J.F.: Current status of dental implants. University of Toronto Essay. 1983.
4. Zarb, G.A., and Symington, J.M.: Osseointegrated dental implants: Preliminary report on a replication study. J. Prosthet. Dent. 50:271-276, August 1983.

occur. The first event would reflect a tissue rejection with an acute or chronic inflammatory response and early loss of the implant. The second event which has frequently been construed as a successful response, is one in which fibrous encapsulation of the implant takes place. In these situations, evidence is lacking to suggest that such an encapsulation constitutes a "pseudo periodontium" or a "periodontium-like" structure. Clinical observation of the second type of response suggests that a time dependent shift to an acute rejection can occur. In fact, such a situation can be considered analogous to what happens when teeth with chronic advanced periodontal disease develop periodontal abscesses. The premise here is that both clinical situations are characterized by a compromised and therefore vulnerable attachment mechanism whose behaviour is unpredictable in the context of oral functional and parafunctional demands, oral hygiene maintenance, systemic health, etc. On the other hand, if induction of bone formation around an implant is clinically feasible, then a secure method of attachment or anchorage can be predicted, and interfacial osteogenesis or "osseointegration" will take place.

Since 1965, Brånemark and his colleagues at the University of Goteborg, Sweden, have inserted over

America. The latter systems are characterized by the development of a nonadherent fibrous capsule of varying thickness which sooner or later appears to surround alloyed metal implants. While Brånemark's writings do not preclude the possibility that other materials and/or systems could lead to similar osseointegration results, his is the only body of work which is supported by documented evidence.

At the 1982 Toronto Conference on Osseointegration in Clinical Dentistry, Lindhe presented histologic and microbiologic evidence from 20 patients who had been treated with osseointegrated dental prostheses for several years. He found a relatively sparse inflammatory infiltrate in the connective tissue, as well as reduced pathogenicity of the microorganisms in the plaque on the fixtures. His results seemed to suggest that the epithelial interface with the pure titanium surface may be a better one than with enamel or root surface of the natural tooth. It is tempting to conclude that the soft tissue titanium relationship cannot, and perhaps should not be assessed by conventional dental indices, and is *not* necessarily the "peri-implant" seal of consequence that implant literature suggests is necessary. In fact, Brånemark contends that osseointegration of the fixture into the host bone is ade-

quate to ensure the ongoing viability of an abutment, even if an attachment apparatus coronally to the bone level does not occur.

The Swedish publications on long-term clinical research in the field of osseointegrated dental implants offer considerable optimism for this clinical technique. Furthermore, a current Canadian clinical study at the University of Toronto has already replicated the Swedish results, albeit in the short term. Prosthodontists and dentists all over the world will follow with great interest the attempts

of both the Toronto researchers and those in several other dental schools who will be seeking to replicate the longitudinal successes claimed by our Swedish colleagues.

It seems prudent that the CDA should encourage the Canadian schools' insistence on a scientific approach to the teaching of dental implants. Furthermore provincial dental associations should be informed about the current status of implants to ensure that the eventual introduction of such a therapeutic method be controlled by a knowledgeable profession rather than an insurance industry.

The following statements summarize the general position of the Association of Prosthodontists of Canada regarding Dental Implants.

1. Successful dental implants would be an asset in prosthodontic care for patients. Therefore both basic and clinical science research on implants is justified.
2. With few exceptions* most research on implants to date has been inadequate, lacking scientific and longitudinal documentation.
3. Implants should only be used with a patient's informed consent which recognizes potential sequelae of such a treatment, and only after other treatment modalities have been exhausted.
4. Regular review of development and progress in the field of dental implants should be undertaken by C.D.A. recognized bodies or a specially appointed committee. Such a scientific scrutiny could ensure maximum, ongoing professional and public education.

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PERIODONTAL DISEASES

One copy of the following articles is available at no charge from the library to all CDA members. Non-members will be charged \$5 for this and future MEDLARS bibliographies. This bibliography was generated with the help of MEDLARS, a computerized information retrieval system for the Health Sciences field, which has been operational at the library since February 1982, and is at the disposal of all members.

1. Acosta, F., Carrell, R and Binns, W.H. Jr. *Dental stains and their relationship to periodontal diseases in children*. Acta de Odontologia Pediatrica, v. 3, no. 1, June 1982, pp. 13-18.
2. *Advances in clinical dental practice: experts explore the future*. Journal of the American Dental Association, v. 106, no. 5, May 1983, pp. 598-611.
3. Chasens, A.I. *A non-surgical treatment for gum diseases: fact or fancy*. Journal of the Wisconsin Dental Journal, v. 59, no. 4, April 1983, pp. 316-317.
4. Chauncey, H.H., Feldman, R.S. and Waylor, A.H. *Oral aspects of aging*. American Family Physician, v. 28, no. 1, July 1983, pp. 147-152.
Abstract: The physician who is aware of oral problems can play an essential role in providing comprehensive care for the elderly. The average person 65 years or older visits the dentist about once a year. Because of more frequent contact, the physician has a greater opportunity to identify important dental problems of the geriatric patient.
5. Crawford, A.W., Sampson, W.J. and de Bruin, H.J. *Shallow fluoride depth profiles of cementum in periodontal disease—a pilot study*. Journal of Dental Re-

search, v. 62, no. 7, July 1983, pp. 806-810.

6. Evian, C.I. and others. *The effect of submerging roots with periodontal defects*. The Compendium of Continuing Education, v. 4, no. 1, January-February 1983, pp. 37-43.
7. Gold, S.I. *Early origins of hydrogen peroxide use in oral hygiene. A historical note*. Journal of Periodontology, v. 54, no. 4, April 1983, p. 247.
8. Hedegard, B. and Landt H. *Cantilever bridges or removable partial dentures in Kennedy Class I cases?* Quintessence International, v. 14, no. 2, February 1983, pp. 173-182.
9. Held, A.J. *Un demi-siècle de Parodontologie*. Revue Belge de Médecine Dentaire, v. 38, no. 2, March 1983, pp. 30-33.
10. Ismail, A.I., Burt, B.A. and Eklund, S.A. *Epidemiologic patterns of smoking and periodontal disease in the United States*. Journal of the American Dental Association, v. 106, no. 5, May 1983, pp. 617-621.
Abstract: The adverse effects of smoking on periodontal health has been demonstrated in the analysis of the dental and smoking history data collected from a representative sample of the U.S. population. The association be-

AFFECTIONS PERIDENTAIRES

On peut se procurer sans frais une copie des articles ci-dessous. À partir de maintenant, ceux qui ne sont pas membres doivent payer \$5 pour une copie des ces bibliographies-ci. Cette bibliographie a été dressée grâce à MEDLARS, un système automatisé de recherche documentaire sur les sciences de la santé que la bibliothèque exploite depuis le mois de février 1982, et qu'elle met au service de tous les membres.

tween poorer levels of periodontal health and smoking remained even after accounting for age, sex, race, oral hygiene, socioeconomic status, and frequency of daily toothbrushing variables. When the analysis was restricted to smokers only, no clear-cut association was demonstrated between periodontal disease and the duration of smoking or the number of cigarettes smoked per day. The results of this study suggest that dental practitioners should try to discourage their patients from smoking for reasons of periodontal health as well as general preventive care.

11. Laufer, J. *Études cliniques d'un nouveau traitement local*. Information dentaire, vo. 65, no. 10, March 1983, pp. 902-912.
12. Lewis, A.B. *Uncontrolled diabetes: atypical symptoms and significant signs the dentist sees*. Rhode Island Dental Journal, v. 15, no. 4, December 1982, p. 14.
13. Lewis, A.B. *A position paper: the American Academy of Periodontology's view of the prevention and treatment of periodontal disease*. Rhode Island Dental Journal, v. 15, no. 4, December 1982, pp. 17-18.
14. Manson, J.D. and Waite, I.M. *Is periodontal disease preventable? a review*. Journal of the Royal

Society of Social Medicine, v. 76, no. 5, May 1983, pp. 404-408.

15. Martin J. *The overlay denture — treatment planning considerations in cases of advanced periodontal disease with compromised circumstances.* International Journal of Periodontics and Restorative Dentistry, v. 2, no. 6, 1982, pp. 66-79.

16. Messer, H.H., Singer, L. and Ophaug, R. *Fluoride intake and alveolar bone loss in disease-susceptible mice.* Journal of Periodontal Research, v. 18, no. 1, January 1983, pp. 82-85.

17. O'Leary, T.J. and Kafrawy, A.H. *Total cementum removal: a realistic objective?* Journal of Periodontology, v. 54, no. 4, April 1983, pp. 221-226.

Abstract: The purpose of this study was to determine if total cementum removal from periodontally involved root surfaces was a clinically realistic objective. The experimental specimens were 36 periodontally involved teeth, extracted because of advanced periodontal disease. Eighteen teeth were from patients under age 36 while the other 18 were from patients over 36. All teeth had at least 6 mm of attachment loss on the proximal surface tested and showed no evidence of forceps damage. After removing all visible calculus, equal numbers of

each tooth type in each age group were given 50 planning strokes with a Jacquette scaler, a Gracey curet, or an Indiana University curet. Following the planing procedure the specimens were fixed, decalcified, and 7 microns thick sections prepared and stained with hematoxylin and eosin. Two teeth were excluded from the evaluation due to poor orientation. In none of the remaining 34 teeth was cementum totally removed over the entire proximal test surface. There was no apparent difference between the instruments in the amount of residual cementum found. Larger amounts of residual cementum were seen in more apical areas in both age groups.

18. Van Dijk, L.J. and Wright, W.H. *Effects of oral hygiene on the results of periodontal surgery in beagle dogs with artificially created effects.* Journal of Periodontology, v. 54, no. 5, May 1983, pp. 291-298.

Abstract: The effects of oral hygiene on periodontal surgery was evaluated clinically, radiographically and histologically during 24 months. In 13 beagle dogs artificial periodontal defects were created around the second, third and fourth premolars of the mandible. One week after removal of the plaque retention ligatures, periodontal surgery consisting

of mucoperiosteal flaps and osseous recontouring was performed. Postoperatively, plaque accumulation was prevented by daily application of a 2% chlorhexidine solution for 2 weeks and daily tooth-brushing for the next 2 weeks. Toothbrushing was continued in seven dogs; oral hygiene was discontinued in the other six. All dogs were scaled and polished at 1, 6, 12 and 18 months after surgery. Plaque accumulation in the nonbrushed dogs resulted in a heavy inflammation of the periodontium. Probing depths that had been reduced by the surgery increased and subsequently the clinical attachment level changed into a more apical level compared to the brushed dogs. Histometrically, however, no difference in attachment level could be recorded, indicating that oral hygiene did not affect the attachment level in the 2 years after surgery. It appears that oral hygiene stimulated bone formation and that the periodontal tissues had not matured in the 2 years after surgery.

19. Watkins, T.R. and Scully C. *Prevention of dental disease.* Practitioner, v. 227, no. 1378, April 1983, pp. 615-621.
20. Yulzari, J.C. *Strategic extraction in periodontal prosthesis.* International Journal of Periodontics and Restorative Dentistry, v.2, no. 6, 1982, pp. 50-65.

NEW LIBRARY ACQUISITIONS

The following current acquisitions are available on loan from the Resource Centre/Library.

TITRES EN BIBLIOTHÈQUE

Les titres indiqués ci-dessous sont maintenant disponibles à la bibliothèque/centre de documentation de l'ADC.

1. Chung, David C. and Lam, Arthur M. *Essentials of Anesthesiology.* Toronto: W.B. Saunders, 1983. 224p. 1 copy.
2. Dunlap, J.E. *Stress, Change and Related Pains.* Tulsa, Okla.: Pen-Well Books, 1981. 229p. 1 copy.
3. Holmes, King K. and Mardh, Per-Anders, editors. *International Perspectives On Neglected Sexually Transmitted Diseases: Impact On*

- Venereology, Infertility, and Maternal and Infant Health.* Washington: Hemisphere Publishing, 1983. 336p. 1 copy.
4. Lesjaunias, Pierre L. and Berenstein, A. *Craniofacial and Upper Cervical Arteries; Collateral Circulation and Angiographic Protocols.* Baltimore, Md.: Williams & Wilkins, 1983. 187p. 1 copy.
5. McCracken, Alexander and Cawson, Roderick A. *Clinical and Oral*

- Microbiology.* Washington: Hemisphere Publishing, 1983. 629p. 1 copy.
6. Milone, Charles L., Blair, W. Charles and Littlefield, James E. *Marketing for Dental Practice.* Toronto: W.B. Saunders, 1982. 377p. 1 copy.
7. Ramfjord, Sigurd and Ash, Major M. *Occlusion.* 3rd edition. Toronto: W.B. Saunders, 1983. 554p. 1 copy.

Publications

Dentofacial Deformities: Surgical-Orthodontic Correction

Bruce N. Epker and

Larry M. Wolford

*The C.V. Mosby Co.
St. Louis, Missouri
\$71.40 U.S.
477 pages.*

This book on orthognathic surgery is a 'must' for anyone involved in combined surgical-orthodontic treatment of dentofacial and craniofacial deformities. The content is primarily devoted to the description and illustration of the various surgical techniques that the authors 'have developed, modified, or simply employed and found to be reliable and safe.' The operative procedures discussed 'cover the entire scope of those available, which permits the correction of virtually all dentofacial deformities.' The authors are the Director and Assistant Director of both Oral and Maxillofacial Surgery and the Center for Correction of Dentofacial Deformities at John Peter Smith Hospital in Fort Worth, Texas, and are well known and active in the area of corrective facial surgery.

It is divided into three major parts: Mandibular Surgery, Maxillary Surgery and Midface Surgery. Within these parts are twelve chapters which discuss segmental mandibular ramus surgery, mandibular body surgery, genioplasties, alloplastic mandibular augmentation, temporomandibular joint surgery, segmental maxillary surgery, total maxillary surgery, surgical-orthodontic maxillary expansion, bone grafting of unilateral and bilateral alveolar clefts, midface augmentation and extracranial midface osteotomies with regard to their indications, specific operative techniques and useful modifications. The table of contents clearly outlines the various surgical procedures contained in each chapter. Numerous selected references are listed at

the back of the book alphabetically for each chapter.

A step by step technique of each surgical procedure which best corrects a particular deformity is presented including design of soft tissue incisions and bony cuts, the instruments used, methods of fixation and suggestions on how to avoid untoward sequelae. There are 691 illustrations including photographs of case examples and superbly detailed line drawings that illuminate and graphically enhance the written information. Special effort has been made to place these illustrations directly beside the corresponding text which makes this book a pleasure to read.

A criticism of this book is that its orthodontic input is not as major as the title would imply. While orthodontic-surgical interaction is

emphasized and illustrated, it is not expanded upon specifically for each of the various deformities discussed.

In addition, the book would be more 'complete' if topics such as diagnosis, treatment planning, including cephalometric prediction, surgical-orthodontic sequencing and model surgery, as well as splint fabrication and long term stability were covered in more detail.

The production details are excellent. The paper quality, binding, print size and illustrations are superior. This book contains a wealth of clinical information and has tremendous merit as an operative procedures manual.

This book was reviewed by Arlene P. Dagys, DDS, D Orth, Facial Treatment and Research Centre, Hospital for Sick Children, Toronto, Ontario.

Atlas of Oral Pathology

Roy Smith, James Turner,
Morris Robbins

*C.V. Mosby Company
St. Louis Missouri, 1981
\$34.25
263 pages*

The atlas consists of an initial tabulation of oral lesions according to type, (white, red, ulcerated etc), common location, and specific disease process; also included is the text reference to a fuller description and illustration of each lesion. This simple but relatively practical classification should assist readers to diagnose and treat conditions with which they may not be completely familiar.

The body of the text consists of 250 pages divided into ten chapters. The authors and publishers have to be complimented for their strict adherence to a specific format. On each left hand page there is described the clinical appearance of a lesion, current theories

on its etiology, and accepted treatment modalities. On the adjacent right hand page are appropriate illustrations which include clinical photographs, radiographs and photo-micrographs. This set-up allows the reader to have a visual perception of the written description.

An atlas of this type is judged by the nature and relevance of the illustrative material. The majority of photographs are of superior quality and support the text by illustrating the salient features of each lesion. Surprisingly, the clinical photographs of common periodontal conditions are somewhat flat and it is difficult to appreciate the appearance and texture of gingival tissues. In the same chapter diminutive full mouth radiographs are difficult to interpret and their value is doubtful. The illustration of intra-oral pemphigus is not that of the usual oral manifestation. Considering

the importance of the early recognition of oral pemphigus a photograph of its more typical irregular erosive features would be appropriate. In a similar vein it is unfortunate that there is no clinical photograph of the highly infectious secondary stage of syphilis. While it is appreciated that in an atlas the text should be minimal, the lack of specific descriptions of the illustrations, especially of the photomicrographs, may cause some confusion to those not familiar with pathologic features. The atlas consists of 220 coloured clinical photographs, 129 radiographs and 64 coloured photomicrographs.

Brief descriptions, as in this atlas, of clinical entities often result in unavoidable omissions and misrepresentations. For example, the authors ought to have stressed the necessity of a histopathologic examination of dentigerous cysts to confirm the diagnosis, and to rule out ameloblastomatous and malignant change. The text suggests that the prognosis of ameloblastoma is "excellent." This adjective requires qualification. While it is considered that the ameloblastoma is not a lethal tumor it will recur if not adequately treated, which may necessitate radical surgery.

Atlases impart the idea that the illustrations are specific for the particular lesion, and they fail to communicate the essential fact that the disease may have a spectrum of clinical and pathologic features. Perhaps to do this would convert an atlas into a text-book. Nevertheless, the relatively simple inclusion of a differential diagnosis at the end of each description would enhance the clinical simulation of this atlas.

Apart from a few minor failings similar to the ones noted, the authors have to be applauded for writing clear, concise and informative descriptions which they have visualized with commendable photographs.

The cost, short descriptions, and good illustrations will make the atlas attractive to students. However, the atlas will be a wel-

come addition to the library of general practitioners who wish to maintain an interest in the protean manifestations of oral disease.

This book was reviewed by John Hardie, BDS, MSc, Chief, Department of Dentistry, Ottawa Civic Hospital, Ottawa, Ontario.

Human Dentofacial Growth

D.H. Goose and

J. Appleton

*Permagon Press
Oxford, England 1982
\$17.95 US (softcover)
228 pages*

This is a basic text dealing with the subject of facial growth. It begins, as one would expect, with the "Principles of Human Growth", describing the methods and problems of studying growth. This chapter is followed by "Bone as a Tissue", concerning itself with the development and structure of bone, as well as methods of bone growth. It includes a section on the initiation of calcification which is an excellent summary of current knowledge on the subject, even though there is considerable debate regarding the mechanism.

The following three chapters deal with the growth of the cranium, midface, and mandible, respectively. The contributions of sutures and cartilage, as well as the principles of displacement and surface deposition/resorption are dealt with. Referrals are made to the works of Enlow and Bjork and the functional matrix theory of Moss is covered. The debate over the importance of the nasal septum is discussed and, in conclusion, it is suggested that "if it is an important growth centre, it is probably mainly operative in the foetal and early postnatal period."

Under the topic of cleft lip and palate, multifactorial inheritance of clefts of the primary and secondary palate is discussed, as is the risk of parents having further children with clefts in families with existing cases.

Although illustrations were generally used well, they were lacking in the chapter on midfacial growth, which makes the concept of resorption and deposition in this area difficult to visualize. Bibliographies at the end of each chapter seem to be complete.

Chapter six, titled "The Temporomandibular Joint", is a good review of anatomy and histology in light of recent advances in the diagnosis and treatment in this area.

The best chapter in the text is "Cephalometrics and Facial Growth", which includes a summary of the debate over growth prediction. This is an excellent introduction to the issue, even for the graduate orthodontic student. It would appear that predicting timing of skeletal growth is one thing, but that actual change, in terms of direction and magnitude, is another.

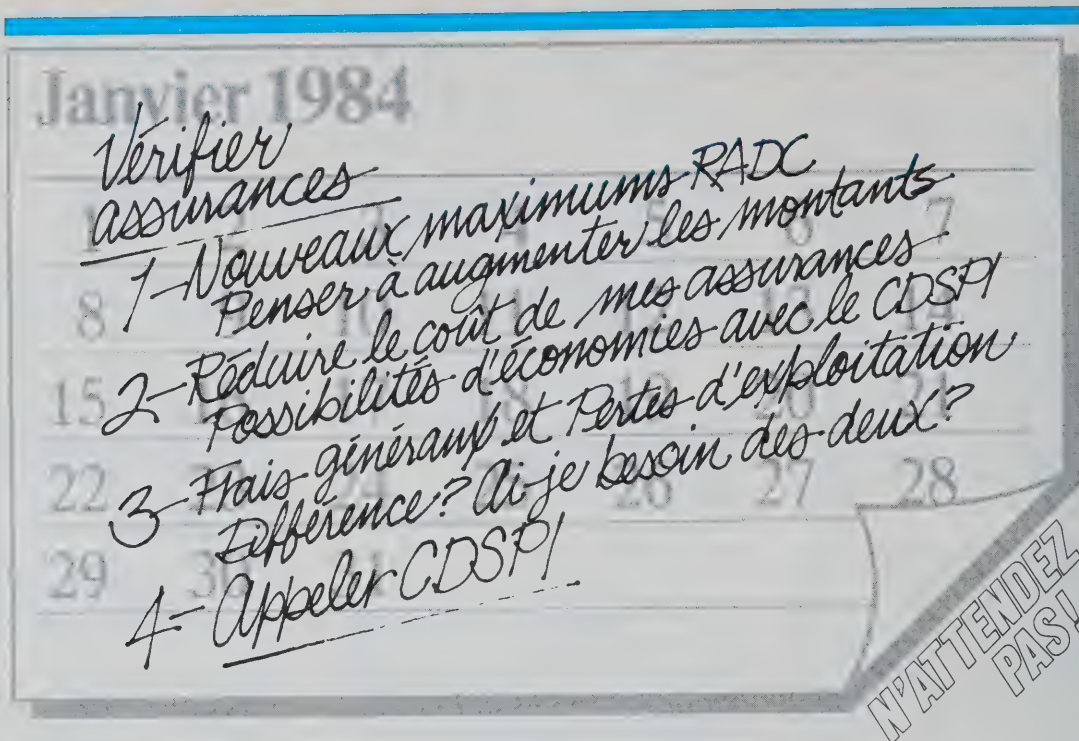
"The Development and Structure of the Teeth and their Supporting Tissues" is complete enough to be used as a basis for a course in dental histology. Credit is given to Professor J.W. Osborn of the University of Alberta for his contributions in this area.

The last chapter is the "Establishment of the Dental Arch", which in part deals with the theories of tooth eruption and concludes that it is probably a multifactorial process.

Finally, the book includes a statistical appendix which is a good short course for the dental student.

I would recommend that the faculty of our dental schools give this text consideration for use in orthodontic and pedodontic courses.

This book was reviewed by Duncan W. Higgins, BSc, DDS, MSD, a practising orthodontist in Vancouver, B.C.



La fin de l'année est le moment de faire le point et de préparer l'avenir. Le CDSPi aimerait vous rappeler à cette occasion l'importance d'une révision et d'une mise à jour annuelles de vos assurances.

Un certain nombre de changements entrent en vigueur en janvier 1984, qui vous permettront de mieux protéger votre famille et votre avenir.

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Régimes parrainés par vos associations dentaires nationale et provinciales et administrés par le **Canadian Dental Service Plans Inc.**

L'ADC agréé les amalgames de cuivre-argent comme matériau de restauration.

Le rapport suivant a été rédigé à la suite d'un symposium intitulé: "L'utilisation du mercure et de l'amalgame en dentisterie." Il a été présenté à l'Assemblée annuelle du Conseil d'administration tenue avant le Congrès de l'ADC à Vancouver, en septembre dernier.

Des dentistes de diverses régions du Canada ont rapporté à l'Association dentaire canadienne que certaines personnes se sont inquiétées des effets secondaires qui peuvent être associés à l'utilisation de l'amalgame d'argent comme matériau de restauration dentaire.

Le 27 mai 1983, le Conseil des matériaux et dispositifs dentaire de l'ADC a formé un comité spécial pour étudier la question. Une révision des publications pertinentes ainsi que des discussions avec les membres du comité et des membres de la profession ont révélé qu'un très petit nombre de personnes sont sensibles aux amalgames. Évalué avec précision, ce nombre est très peu élevé en comparaison des innombrables restaurations à l'amalgame.

L'amalgame est généralement accepté par la profession dentaire depuis 80 ans environ. Bien que des réserves aient été exprimées à l'occasion, elles n'ont jamais été appuyées par des preuves scientifiques. Au cours des cinq dernières années, divers essais effectués en laboratoire et en clinique ont démontré que le rendement et la stabilité des toutes nouvelles formules d'alliage sont cliniquement supérieurs. Ces améliorations sont dues aux recherches entreprises au Canada (Innes et Youdelis, 1963) et à la mise au point des techniques de manipulation. Quand une restauration s'impose, l'amalgame est toujours le matériau de choix pour réparer la plupart des dents postérieures cariées.

Tout patient est exposé à diverses sources de pollution par le mercure

comme la pollution industrielle, la peinture, la cigarette et les aliments. On n'a pas démontré que l'exposition causée par les obturations à l'amalgame soit plus considérable ou plus novice que celle qui est causée par d'autres sources de moindre importance. La recherche et l'expérience clinique ont révélé que la sensibilité à certain métaux peut parfois être la cause des problèmes dentaires d'un patient. Le mercure est seulement un de ces métaux, et la quantité de mercure absorbée à la suite d'une restauration à l'amalgame est très faible. De fait, elle est moindre que celle qu'on peut déceler dans certains régimes alimentaires et dans les effets ambiants de la vie moderne.

À la lumière des connaissances actuelles le Conseil des matériaux et dispositifs dentaires de l'Association dentaire canadienne agréé la déclaration suivante émise par l'Association dentaire américaine: "Sauf pour les personnes qui sont sensibles au mercure, il n'y a aucune raison pour qu'un patient demande qu'on lui enlève ses obturations à l'amalgame." (Journal de l'Association dentaire américaine, 106, p. 519-520, 1983.)

Toutefois, la dentisterie doit voir à réduire le plus possible l'absorption de toute substance étrangère utilisée pour les traitements dentaires. Le Conseil des matériaux et dispositifs dentaires de l'Association dentaire canadienne recommande fortement qu'on utilise les alliages qui résistent le mieux à la corrosion, qu'on se serve de bandes en caoutchouc pour arrêter et recueillir tous les débris, que l'assistante dentaire ait recours à un mode de nettoyage très rapide, et qu'on mette vigoureusement en vigueur les recommandations de l'ADC touchant les règles d'hygiène quand on utilise du mercure (1979). Il va sans dire que le retrait des amalgames doit se faire avec un vaporisateur et un système de

nettoyage très rapide. Il a été démontré que si l'on taille un amalgame à sec, patients et membres de personnel dentaire absorbent plus de mercure.

Le Conseil des matériaux et dispositifs dentaires recommande que des études cliniques sérieuses soient faites avec des patients sensibles aux amalgames de manière à établir une base scientifique valable pour les réactions à ces matériaux de restauration. Pareilles études doivent bien s'assurer que les patients n'ont pas avalé ou ingéré des débris d'amalgame durant les obturations et doivent déterminer la date des obturations ainsi que leur composition. De plus, elles doivent voir à ce que les proportions d'alliage-mercure et que la méthode de pose aient été acceptable.

Le Conseil des matériaux et dispositifs dentaires appuie fortement le principe selon lequel le traitement clinique des personnes qu'on soupçonne être sensibles au mercure ne doit pas dépendre uniquement du diagnostic émis par le dentiste, mais aussi des observations d'un dermatologue ou d'un allergologue compétent. Les tests de sensibilité aux métaux ne sont pas simples et exigent les connaissances d'un expert.

Pour conclure, il faut noter qu'on n'a démontré aucune propagation générale de la sensibilité au mercure parmi les dentistes et les membres du personnel dentaire qui peuvent être exposés à des taux d'absorption beaucoup plus élevés. En un sens, les membres de la profession dentaire eux-mêmes peuvent être considérés comme un groupe témoin qui a été exposé à des taux de mercure peu élevés pendant de longues périodes de temps. Les dangers possibles pour le personnel dentaire provenant d'une exposition à la vapeur de mercure dans les cabinets dentaires ont été bien documentés (Jones et al, 1983) et

Suite à la page 856

Congrès conjoint de l'ADC et de l'ODQ avril à Montréal — du 8 au 12 du avril 1984

Avril à Paris, c'est bien certes, mais avril à Montréal, c'est idéal. En avril prochain, Montréal donnera rendez-vous à tous les dentistes canadiens pour le congrès que, par une disposition spéciale, tiendront conjointement l'Association dentaire canadienne et l'Ordre des dentistes du Québec.

Selon le président du Congrès 1984, le Dr Michel Jahjah, le congrès annuel de l'ODQ, "les Journées dentaires du Québec," est toujours populaire et attire un grand nombre de dentistes, d'assistantes et d'hygiénistes, sans compter leurs conjoints.

Quand on a choisi Montréal pour le site du Congrès 1984 de l'ADC, les présidents de l'ADC et de l'ODQ ont accepté de tenir un congrès conjoint. Les Drs Robert N. Hicks et Marc Boucher, respectivement de l'ADC et

de l'ODQ, ont formé un comité organisateur avec des représentants des deux organismes pour faire en sorte que le Congrès 1984 soit réellement une expérience conjointe unique.

Les membres du comité sont:

le Dr Michel Jahjah,
Président général
le Dr Mel Hershenfield
le Dr Denis Laflamme
Mme Linda Teteruck
(ADC Liaison)

Mme Christine Hupfer, Secrétaire
Sont membres ex-officio de ce comité: Hubert Drouin, Directeur exécutif de l'ADC, et le Dr Pierre-Yves Lamarche, Directeur exécutif de l'ODQ.

Le congrès aura lieu du 8 au 12 avril 1984 dans le tout nouveau Palais du congrès de Montréal. Avant les trois journées habituelles consacrées aux

séances scientifiques, aux démonstrations cliniques et aux activités sociales, il y aura deux journées de cours en éducation permanente.

Le dimanche 8 avril, le Dr Francis Edwards prononcera, en anglais mais avec traduction simultanée, une conférence sur le marketing des services professionnels. Le même jour, les Drs Pierre Duquette et Robert Langlais donneront en français une "conférence clinico-pathologique".

Le 9 avril, le Dr Alvin J. Fillastre donnera un cours en anglais un intitulé "Predictable Restorative Procedures". Le même jour, le Dr Alain Vaillancourt et ses collaborateurs présenteront en français un exposé portant sur les prothèses complètes.

Le programme scientifique du congrès, qui débutera le 10 avril, se composera de conférences données en

Programme Scientifique		Scientific Program	
Orateur	Sujet	Speaker	Subject
le Dr. Normand Brien (Montréal)	Prothèse partielle amovible	Dr. Gerald Kramer (Boston)*	Periodontics
le Dr. Richard Taché (Montréal)	Prothèse complète	Dr. Thomas Graber (Illinois)	The Grieve Memorial Lecture (Orthodontics)
le Dr. Peter Vakor (Montréal)	R.C.P.	Dr. Robert Langlais (Texas)	Pathology
les Drs. M. Diner et V. Legault (Montréal)	Pédodontie	Dr. Gerald Denehey* (Iowa)	Composite Resins
Être annoncer	Endodontie	Dr. Glen McGivney (Milwaukee)	Removable Partial Dentures
le Dr. J. M. Korbendau (France)	Périodontie	Dr. Peter Vaktor (Montreal)	Cardiopulmonary Resuscitation
Être annoncer	Orthodontie	Dr. Robert Lawlor (Montreal)	Hepatitis B
le Dr Robert Lawlor (Montréal)	Hepatitis B	Patricia Burger*	Touch Your Patients with Love
le Dr. Ron Jones (Montréal)	Occlusion	*Simultaneous translation	
le Dr. Helene Lemay (Montréal)	Pharmacologie	Speakers are to be announced for Thursday's program, but dental computers, oral surgery and endodontics will be the subject areas explored.	
le Dr. Pierre Desautels (Montréal)	Matériaux dentaires		

français et en anglais et portant sur des sujets variés. Le tableau suivant offre un aperçu des conférences présentées.

En plus des conférences scientifiques et des tables rondes, il y aura des entretiens cliniques de tableaux, une session sur les nouveautés en médecine dentaire, et des présentations audio-visuelles pendant tout le congrès.

Hygiénistes et assistant(e)s

Le déjeuner du Président aura lieu pour l'Association canadienne des hygiénistes dentaires le 10 avril, et l'assemblée générale annuelle de l'Association des hygiénistes dentaires du Québec aura lieu le même jour. Les assemblées générales annuelles de l'Association canadienne des assistant(e)s dentaires et de l'Association des assistant(e)s dentaires du Québec auront également lieu le 10 avril. Le 12 avril, aura lieu un petit déjeuner pour les assistant(e)s dentaire inscrites suivi de la conférence de Monica Belcourt parlera de «Time Management».

Programme Social

Le congrès conjoint aura également un programme social important. Lundi 9 avril, aura lieu une réception de bienvenue pour les dentistes exerçant en dehors de la province de Québec. Cette réception, avec vins et fromages, permettra aux délégués pré-inscrits en provenance de l'extérieur de la province d'obtenir leur trousse d'inscription au congrès. Cette réception aura lieu au réputé Hôtel Reine Elizabeth de Montréal.

Toujours à l'Hôtel Reine Elizabeth le mardi soir on offrira une soirée «Avril à Montréal» avec buffet chaud et froid «à la Québécois», avec des attractions surprises, des chanteurs, des danseurs et des distractions pendant toute une soirée qui promet d'être pleine de «joie de vivre».

La nuit du mercredi 11 avril, aura lieu la Soirée de Gala des Présidents. Ce Gala rendra hommage aux Présidents de l'Association dentaire canadienne et de l'Ordre des dentistes du Québec. Cette soirée offrira aux délégués un repas de gourmet, une atmo-

sphère magnifique et un bal jusqu'aux petites heures de la nuit avec un grand orchestre.

Programme des Épouses

Les épouses des congressistes seront assurées d'un agréable séjour dans la ville de Montréal. La liste ci-jointe donne un aperçu des activités prévues à leur intention durant la tenue du Congrès conjoint de l'ADC et de l'ODQ.

Pour de plus amples renseignements sur la Convention conjointe ADC-ODQ, voir les prochains exemplaires du Journal de l'ADC et surveiller un envoi spécial pré-convention début janvier. Aussi dans les prochains Journal, voir le formulaire d'inscription et la forme pour réservation d'hôtel.

♦♦♦♦♦♦♦♦

Programme Epouses

MARDI 10 AVRIL 1984

Matin: Petit déjeuner conférence et visite de la Bourse de Montréal.

Après-midi: Analyse des couleurs personnelles; comprend la détermination des couleurs qui conviennent le mieux aux personnes en matière d'habillement, de maquillage, de coiffure, ainsi que des présentations de la nouvelle mode de coiffures.

MERCREDI 11 AVRIL 1984

Matin: Visite de la ville: No 1: «Un jour dans la vie d'une montréalaise»; petit déjeuner servi à 9h00 et tour du nouveau centre commercial Rockland.

No 2: Visite de Montréal: départ 9h00.

Après-midi: Session et leçon de dégustation de vins.

JEUDI 12 AVRIL 1984

Matin: Deux activités au choix. No 1: Petit déjeuner au Champagne à 9h00 et conférence donnée par Monica Belcourt: «Time Management».

No 2: Visite de Montréal: départ à 9h00.

Spouses Program

TUESDAY APRIL 10, 1984

Morning: A breakfast conference and visit to the Montreal Stock Exchange.

Afternoon: Personal Colour Analysis: includes a discovery of colours which suit the individual best, in clothing, make-up and hair, and demonstrations of new hair styles as well.

WEDNESDAY APRIL 11, 1984

Morning: City tours: No. 1: «A Day in the Life of a Montreal Woman»; breakfast served at 9 am and a tour of the new Rockland Shopping Centre.

No. 2: Sightseeing tour of Montreal: departure 9 am

Afternoon: A session and lesson on wine tasting.

THURSDAY APRIL 12, 1984

Morning: Two activities to choose from: No. 1: Champagne breakfast at 9 am and lecture presented by Monica Belcourt on Time Management.

No. 2: Sightseeing in Montreal: departure 9 am.

Le Dr Victor Chatwin prend sa retraite de la médecine dentaire et de son poste à l'ADC

Le Dr J.V.P. Chatwin, connu sous le nom de Vic par ses amis et collègues, a pris ce mois-ci sa retraite de l'Association dentaire canadienne et de la profession de dentiste.

Le Dr Chatwin a rempli, à l'Association dentaire canadienne, les fonctions de Directeur de l'agrément pendant près de six ans, depuis 1978. De 1974 à 1978, il a travaillé au Collège Algonquin à Ottawa, où il a établi et dirigé le premier programme d'hygiène dentaire offert dans un collège communautaire de l'Ontario.

Né à Régina, Saskatchewan, en 1921, le Dr Chatwin alla au Collège militaire Royal, puis servit cinq ans outre-mer, pendant la deuxième guerre mondiale. Après ce service de temps de guerre, il retourna à l'école, et obtint son diplôme de DDS de l'Université de l'Alberta en 1951. Il exerça pendant trois ans la médecine dentaire générale à Petrolia, Ontario, avant de redevenir militaire, et servir dans le Corps Royal dentaire canadien de 1954 à 1974.

Le Dr Chatwin, qui quitta l'armée avec le rang de Lieutenant-colonel, dit que presque toute son expérience dans le Corps fut en médecine dentaire générale et en médecine dentaire hospitalière. Après un an à l'Université de Toronto, où il obtint un diplôme de spécialiste en Santé publique, il alla au Quartier général de la Défense nationale à Ottawa, où il fut chargé de la santé publique dentaire dans l'armée.

«L'un des point saillants de ma carrière de dentiste s'est produit pendant mon service militaire. J'ai été nommé membre du personnel dentaire accompagnant la Reine pendant sa visite royale du Canada en 1970.» dit le Dr Chatwin au Journal.

Membre associé du Collège Royal des dentistes du Canada et Membre associé du Collège international des dentistes, le Dr Chatwin a des sentiments variés à propos de sa retraite.

«Naturellement, J'ai du regret à



Le Dr Vic Chatwin quittant le siège social de l'Association dentaire canadienne à Ottawa. Il a pris sa retraite de Directeur de l'agrément de l'A.D.C. après près de six années de service dans l'Association, et plus de 30 années de service dans la profession.

quitter la médecine dentaire, mais, d'un autre côté, il y a un moment où

l'on veut faire d'autres choses,» dit-il. «Ma femme Beth et moi allons nous installer dans notre maison qui surplombe l'océan à Victoria, Colombie Britannique. J'ai l'intention de faire de la voile, de pêcher, de cuisiner et de faire toutes les choses que je n'ai plus beaucoup de temps à faire.» dit le Dr Chatwin.

En plus d'être un pêcheur et un marin amateur, le Dr Chatwin a une excellente réputation de cuisinier amateur. Il veut écrire un autre livre de cuisine, après les deux qui ont déjà été publiés. Père de trois enfants, deux fils et une fille, le Dr Chatwin a également l'intention de profiter de son nombre grandissant de petits enfants.

Récompense CDRF présentée au Dr. Christopher A. McCulloch

Christopher Allan McCulloch, BSc, D.D.S. PhD, FRCD (c), a reçu le prix du fonds de recherche de l'ADC (CDRF) à la réunion du Bureau des Gouverneurs à l'hôtel Vancouver, des mains du Dr. William Thompson, Président sortant de l'ADC.

Cette récompense institutionnelle est décernée à la faculté de dentisterie ou département de l'université où le récipiendaire a poursuivi sa recherche. Cette année, c'était le département de Biologie Orale de l'Université de Toronto.

Le Dr. McCulloch a poursuivi sa recherche sous la direction des Drs. A.H. Melcher et Donald M. Burnette. Il l'emporta sur quatre autres candidats avec son projet: "Migration cellulaire dans le ligament péri-dentaire des souris." Les lignes de force et les origines des cellules-mères furent étudiées.

Le Dr. McCulloch né à Winnipeg, est un spécialiste en Périodontie et pratique sa spécialité, à Hamilton, Ontario.

Il poursuit présentement sa recherche post-doctorale, au département



d'anatomie de la faculté de médecine, de l'Université de Toronto. Il y a reçu son PhD en 1982, en biologie. Sa présente ambition est de trouver des fonds pour financer un projet de recherche d'une durée de cinq ans, sur la pathogénèse des affections péri-dentaires.

Il a déjà soumis une demande de bourse au conseil de recherche médicale. Le prix CDRF est adjugé annuellement pour encourager la recherche dentaire au Canada.

Le Canada et le Pérou rendent hommage à Bob McAllister

L'ancien président du Lion's Club de Azilda, en Ontario, Bob McAllister, vient d'être honoré par le Canada et le Pérou pour ses contributions volontaires au Pérou et aux Antilles.

Reconnu pour venir en aide aux gens moins favorisés que lui, Bob McAllister a obtenu, le 6 octobre dernier, la plus haute distinction du pays en étant décoré de l'Ordre du Canada. Ont participé à la cérémonie des représentants officiels de l'Agence canadienne de développement international (ACDI), l'Association canadienne d'hygiène publique, l'Association dentaire canadienne et l'Association des hôpitaux de l'Ontario, ainsi que l'Honorable Judy Erola, député de M. McAllister et ministre de la Consommation, et l'Ambassadeur du Pérou au Canada, M. Juan Pablo Fernandini.

M. McAllister est le coordinateur d'un programme visant à fournir de l'équipement dentaire et hospitalier aux cliniques et hôpitaux des Antilles et du Pérou. On le reconnaît pour son habileté à tirer profit de tout, puisque tout l'équipement qu'il envoie dans ces pays provient de dons. Le programme est placé sous l'égide de l'ACDI, des gouvernements des pays intéressés et des Lions Clubs locaux.

Le 7 octobre, M. McAllister et son épouse, Joyce, étaient les hôtes d'un dîner servi en leur honneur par M. et Mme Fernandini. Étaient présents des directeurs de l'ACDI et des principaux organismes de santé du Canada, y compris l'ADC, ainsi que des sénateurs canadiens, des directeurs d'hôpitaux et des membres de l'ambassade.

Après le dîner, M. Fernandini a annoncé que M. McAllister recevrait du gouvernement péruvien une décoration semblable à l'Ordre du Canada.

Peu après, M. McAllister est retourné au Pérou avec huit conteneurs de la marine marchande remplis de pièces d'équipement dentaire pour les hôpitaux et les cliniques dentaires.



Le 7 octobre 1983, l'ambassadeur du Pérou au Canada, M. Juan Pablo Fernandini, et son épouse, ont offert un dîner en l'honneur de M. et Mme. McAllister. On aperçoit celui-ci à gauche, portant la médaille de l'Ordre du Canada dont il a été décoré la veille.

Toutes les pièces sont des dons qui, pour la plupart, ont été faits par l'intermédiaire de la Faculté dentaire de l'Université de Toronto.

"Nous avons réussi à obtenir des pièces plus petites, moins importantes que des fauteuils ou des appareils d'éclairage, a déclaré Bob McAllister. Certaines iront au Pérou et le reste ira aux Antilles."

"Il est important de remarquer, a-t-il poursuivi, que tout cet équipement provient de dons et que tous les besoins des Canadiens sont satisfaits avant d'envoyer ce matériel outremer. Aucun Canadien des régions défavorisées, tel le Nord du Canada, ne manque de matériel dentaire ou médical à cause de ce programme," a-t-il souligné.

Canadiens honorés par le Collège Américain



Quatre canadiens parmi 214 candidats, ont reçu le fellowship, de l'American College of Dentists, à une impressionnante convocation, à Anaheim, Californie, samedi le 1^{er} octobre. Ci-dessus, la photo des trois "fellow" canadiens, après la cérémonie. De gauche à droite: le Dr. Alan D. Fee, Edmonton, Alberta, (qui parainna le Dr. Gordon Thompson), le Dr. W. Brock Love, Professeur de prosthodontie, Faculté Dentaire, Université du Manitoba, Winnipeg; le Dr. Gordon Thompson, Doyen, Faculté Dentaire, Université de l'Alberta, Edmonton; le Dr. David Peters, St. John's, Terre-Neuve, Président du conseil des fiduciaires de CFDE et le parrain du Dr. Peters, le Dr. Hal Leyland, de Nassau, Bahamas. Le Dr. Benjamin Sedlezky, de Westmount, Québec, n'a pu être photographié.

Tous les groupes intéressés qualifient de "Succès complet" le Congrès de l'ADC

"Le meilleur congrès à date; sans anicroche." Ce commentaire était général parmi les 2900 dentistes, hygiénistes, assistantes et épouses qui ont assisté au Congrès de l'Association Dentaire Canadienne, du 25 au 28 septembre.

Les séances scientifiques offraient une information éducative de haut calibre et le programme des divertissements était emballant.

Les dentistes y ont assisté en nombre impressionnant: 1442. Le double prévu du nombre d'hygiénistes a été enregistré ainsi que 400 assistantes dentaires. Même la température a coopéré avec des ciels ensoleillés de septembre, quoique frais à l'occasion. Une seule journée de pluie à Vancouver; qui a d'ailleurs été grandement appréciée par les 600 exposants qui présentaient leurs produits aux 129 kiosques. La pluie amena un auditoire intéressé et assidu et les exposants ont fait d'excellentes affaires. De toute façon, à leur avis, les affaires ont été bonnes durant tout le congrès.

Faits Saillants.

Il y eut plusieurs faits saillants du Congrès, des réunions conjointes et rencontres sociales, la plupart tenues à l'hôtel Vancouver. Un invité distingué, le Dr. Thorsten Aggeryd, Président de la Fédération Dentaire Internationale, prit la parole à la réunion du Bureau des Gouverneurs de l'ADC, précédant l'ouverture immédiate du Congrès. Le Dr. Aggeryd a tenu des propos très flatteurs à l'endroit de l'ADC.

Course de Dégourdissement.

Les délégués sont entrés dans le jeu dès le début des activités. Plus de 240 dentistes, épouses, hygiénistes et assistantes soufflant et transpirant ont franchi la ligne d'arrivée dans le parc Stanley. Cette course était le premier événement officiel du congrès, tôt di-



Le président de l'ADC, le Dr. Robert N. Hicks, à gauche, reçoit la chaîne d'office du président sortant, le Dr. William R. Thompson, au lunch d'intronisation et des récompenses, à l'hôtel Vancouver.



La salle de bal Pacifique, de l'hôtel Vancouver, était remplie; on dû réquisitionner une autre salle pour accommoder les invités, au lunch d'intronisation et récompenses de l'ADC.

manche matin, le 25 septembre. Dans l'après-midi, les salles de montre de l'hôtel Hyatt Regency sont officiellement ouvertes par les représentants

officiel de l'ADC dont: Ex-Président Dr. William R. Thompson, Président du Bureau: Dr. N. Mancini, Président-élu; Dr. P.R. Crawford, Directeur

Exécutif Hubert Drouin, Présidents du Comité du congrès Dr. Ted Ramage et Dr. D.E. Williams et le Président de l'association de l'industrie dentaire: Harold King.

Au comité de l'inscription, ce soir là, on a mis en doute quelques un des effets bénéfiques de la course de dégourdissement; mais, l'avant-goût de la grande qualité des divertissements présentées par le comité organisateur amène les délégués à oublier l'évènement.

À un auditoir de près de 2500 personnes, on présente un spectacle typiquement "Western", vestiges de l'époque "Ruée vers l'or" en Colombie Britannique.

Il y avait la musique de Dixie, des danseuses style Klondike, un très compétent citoyen senior jouant du banjo et faisant battre pieds et mains, un artiste sifflant à travers un large chapeau ce cowboy.

Auditoires considérables.

Les réunions scientifiques, incluant le cours Memorial Grieve de l'ADC, prêté par le Dr. Alan A Lowe, Professeur et chef du Service d'orthodontie de l'école dentaire de Colombie Britannique étaient remplies à capacité et débordaient même dans les corridors, lundi le 26 septembre.

Les conditions étaient les mêmes aux autres cours, dont "Occlusion simplifiée" un symposium sur la dentisterie judiciaire, un autre sur le contrôle de l'infection et de la maladie, cours sur les prothèses amovibles, les lésions, tumeurs et anormalités et symposiums sur l'endodontie et la dentisterie opératoire.

Le symposium du Collège Royal des Dentistes du Canada sur les affections périodentaires se poursuivait toute la journée devant un auditoire considérable.

Le Président de l'ADC fêté.

Lundi matin, un groupe du collège des dentistes de la Colombie Britannique se livra à une cérémonie comique et haute en couleur. Le nou-

veau président de l'ADC, le Dr. Robert Hicks et la Reine Victoria (un peu confuse) en étaient les principaux personnages. Un crieur public vint lire "l'édit", et fit promettre solennellement au Dr. Hicks l'honneur de sa présence à la convention du Collège de la Colombie Britannique, à Victoria, le printemps prochain. On lui donna un impressionnant chapeau de soie et plusieurs baisers.

La bonne condition physique: populaire.

Mardi, la conférence de L'ADC sur la gestion du cabinet, prononcée par le Dr. Harvey Strand de Seattle de Washington et la présentation sur: nutrition, bonne condition physique et panicle adipeux attirent des auditoires considérables. Près de 800 intéressés assistent à Nutrition et Bonne Condition physique, dans les séances du matin et de l'après-midi.

Autre session populaire, mardi, un symposium sur l'Avenir de la Dentisterie, et des cours intitulés: Mise à jour sur la radiologie buccale, restaurations coulées; pourquoi et comment; un symposium sur la périodontie, l'alcool avec autres médicaments, le risque et un symposium sur l'occlusion. Les cliniques de table connaissent une clientèle régulière de délégués intéressés.

Lunch du Président.

À midi, mardi, le 27 septembre, près de 1,280 dentistes, hygiénistes et assistantes prennent place dans les deux salons de l'hotel Vancouver pour le lunch d'installation du Président et la remise des "récompenses". Le Dr William Thompson passe la chaîne présidentielle d'office au Dr. Robert N. Hicks de Vancouver Ouest.

Deux anciens présidents de L'ADC les Drs. William Miller et John Frederick Reid, de Vancouver, deviennent membres honoraires de l'ADC. Le Dr. Douglas Yeo, Vice-Doyen, Faculté de Dentisterie, Université de la Colombie Britannique, reçoit la récompense de l'ADC pour service distingué. Le Dr. Ralph Crawford de Winnipeg, est présenté comme prési-

dent-élu. Le Dr. Thorsten Aggerdy. Président de la Fédération Dentaire Internationale est présenté comme invité d'honneur.

Immédiatement après le lunch, le Dr. Hicks préside, pour la première fois, une réunion du conseil exécutif de l'ADC.

Extravaganza du Président.

L'appellation extravaganza, un peu superlative, trouvait sa justification, mardi soir, dans la salle de bal de l'hotel Vancouver, décorée, dans une féerie de couleurs, en B.C. Super Naturel, avec, comme fond de toile, la ligne d'horizons de la ville.

Le comité planificateur du congrès avait éliminé toute restriction et la qualité du spectacle était somptueuse. Pour débiter, les membres de l'exécutif de l'ADC accompagnés de leur épouse sont escortés le long d'une rampe élevée par le "capitaine George Vancouver" et une variété de personnages colorés.

Puis, commence un spectacle à la Las Vegas avec des danseuses, des mimes, des chanteurs et un groupe local de jeunes musiciens.

Et, soudainement, des groupes musicaux apparaissent de tous les coins de la salle. D'abord, un émouvant ensemble de cornemuses, puis, deux ensembles de cuivre, et finalement un orchestre qui émerge du sous-théâtre. Des animaux, des sirènes langoureuses, des phares et autres objets familiers du bord de la mer sont transportés d'un côté à l'autre de la salle. Et enfin, la danse commence au son du gros orchestre. Le plancher de dance est toujours plein.

Activités du mercredi.

Presque toutes les activités du mercredi 28, consistaient en réunions scientifiques, incluant la présentation de: "Mariage de la périodontie avec la dentisterie restaurative," et la poursuite de la conférence de l'ADC sur l'enseignement. Des symposiums furent tenus sur "Restaurations fixes" et "chirurgie buccale".

Intronisation du Dr. Robert N. Hicks comme Président de l'ADC.

Orthodontiste de Vancouver ouest, ex-conseiller municipal et chargé de cours à l'université, le Dr. Robert N. Hicks recevait, mardi le 27 septembre, la chaine d'office du président de l'ADC des mains du Président sortant le Dr. William R. Thompson.

Le Dr. Ralph Crawford, de Winnipeg, un membre du Bureau des gouverneurs de l'ADC, était intronisé, Président élu, durant le lunch du Président au congrès national, à l'hôtel Vancouver.

Le Dr. Hicks a reçu son D.D.S. de l'Université de l'Alberta en 1962 et un M.S. dans sa spécialité, l'orthodontie de l'Université Northwestern en 1967. Il choisit de pratiquer dans Vancouver ouest; de 1968 jusqu'à présent, il a été membre de la faculté à temps partiel.

Son profond intérêt dans les affaires de la communauté le pousse à



Le Dr R.N. Hicks

participer activement à la politique municipale. Il a siégé au conseil municipal de la cité de Vancouver Ouest de 1976 à 1982.

Contribution à la profession.

Le Dr. Hicks a déjà apporté son fort et efficace leadership professionnel à divers niveaux. Il a été membre du Bureau des Gouverneurs depuis 1974 et s'est distingué comme président du comité de la taxation, de 1978 jusqu'à présent. L'ADC a bénéficié de ses conseils et activités pendant les deux termes qu'il a servi comme mem-

bre du Comité Exécutif de l'ADC en 1977-78, de 1979 jusqu'à présent. Au sein de sa communauté et de sa province le Dr. Hicks a apporté sa contribution aux organisations dentaires et autres. Il a été Président de la Société dentaire de Vancouver en 1972-73, président du collège des chirurgiens-dentistes de la Colombie Britannique en 1974-76. Il a été membre du conseil de l'agence de contrôle du cancer de la Colombie Britannique en 1978-80. Il en devint président en 1982. La même année, le Dr. Hicks devint président de l'association des orthodontistes.

Le Dr. Hicks est Fellow du College International des Dentistes et membre de l'Académie Pierre Fauchard. Le Dr. Hicks et sa femme Robin ont deux enfants; Bryan 15, Janet 13. Le Dr. Hicks aime le ski, la pêche à la mouche, le ski nautique et le squash.

CDA agréée les amalgames suite

les dentistes doivent assurer que les mesures recommandées sont suivies pour minimiser les risques.

Références

1. American Dental Association Council on Dental Materials, Instruments, Equipment Council on Dental Therapeutics. "Safety of Dental Amalgam," J. Amer. Dent. Assoc., 106, 519-520, 1982.
2. Conseil des matériaux et dispositifs dentaires de l'ADC, "Dangers de la contamination par le mercure dans les cabinets dentaires." Journal de l'Ass. dent. can., 7, 320, 1979.
3. Innes, D.B.K. and Youdelis, W.V. "Dispersion Strengthened Amalgams." J. Cand. Dental Association, 29, 587-593, 1963.
4. Jones, D.W., Sutow, E.J. and Milne, E.L. "Survey of Mercury Vapour in Dental Offices in Atlantic Canada." J. Cand. Dent. Assoc., 49, 378-395, 1983.

Régime d'épargne-retraite de l'ADC

Les valeurs respectives du Régime d'épargne-retraite de l'Association Dentaire Canadienne étaient les suivantes au 31 octobre 1983.

<i>Fonds d'actions ordinaires</i>	\$71.44569
<i>Fonds à revenu fixe</i>	\$37.39415
<i>Fonds garanti</i>	\$27.08490
<i>Fonds de placement</i>	\$15.19816

L'avoir total (valeur marchande) du régime s'élevait à \$37,227,863.

Au 30 septembre 1983, les chiffres du mois précédent étaient les suivants:

<i>Fonds d'actions ordinaires</i>	\$75.40087
<i>Fonds à revenu fixe</i>	\$36.90185

<i>Fonds garanti</i>	\$26.89581
<i>équilibré</i>	\$15.32383

L'avoir total (valeur marchande) du régime s'élevait à \$37,857,710.

Pour de plus amples renseignements, veuillez écrire à l'adresse suivante: Canadian Dental Service Plans Inc., Ste. 600, 2 Lansing Square, Willowdale, Ontario M2J 4Z3, ou appeler le service de renseignements du CDSP en composant 1-800-268-5418 (appel sans frais pour l'Ouest canadien, les Maritimes et l'Ontario où le code est 807 seulement), 1-800-268-3411, (appel sans frais pour le Québec et l'Ontario sauf où le code est 807), et 497-7117 (Région métropolitaine de Toronto).

Le Dr William Thompson rend hommage aux qualités du Dr. Robert N. Hicks, nouveau Président de l'A.D.C.

Le Dr William R. Thompson, Président sortant de l'A.D.C., présenta le nouveau président en ces termes: un président idéal de l'A.D.C. devrait avoir les qualités suivantes: «il ou elle devrait exercer sa profession de manière active, avoir la connaissance, et l'expérience des activités dentaires aussi bien provinciales que nationales, être avisé, s'intéresser à la politique et en avoir l'expérience, et être stimulé par les conflits et les problèmes juridiques. Mesdames et messieurs,» continua-t-il, «nous avons en vérité beaucoup de chance, car le nouveau Président, le Dr Bob Hicks, possède toutes ces qualités, et bien d'autres.»

Le Dr Thompson remit alors la chaîne présidentielle au Dr. Robert N. Hicks, de West Vancouver.

Sentiment d'accomplissement

Plus tôt dans ses remarques, le Dr Thompson remercia «un nombre important de dentistes et le personnel du siège social, très responsable et dévoué» pour leur «aide, soutien et coopération» pendant sa présidence. Il ajouta que «c'est ce qui lui permit de finir son année avec un sentiment d'accomplissement.»

Continuez à être très actifs

Les problèmes, dit-il, auxquels doit



Le Dr W.R. Thompson

faire face la médecine dentaire «nécessiteront soit une continuation de l'activité actuelle intense dans de nombreux domaines, soit, en vérité, une augmentation de cette activité dans certains domaines spécifiques. Il est certain que l'activité de l'A.D.C. auprès du gouvernement fédéral a considérablement augmenté, et je pense qu'elle continuera à augmenter si nous voulons représenter efficacement la médecine dentaire organisée, et également augmenter nos services aux membres, dentistes salariés aussi bien que possédant leur propre cabinet.»

«Tout ce que nous produisons doit être coordonné,» continua-t-il, «de manière à nous permettre d'en présenter tous les aspects, ce qui veut dire

qu'il doit y avoir discussion avec les associations provinciales (nos institutions membres), aussi bien qu'avec l'ACFD, la NDEB, la RCDC, nos sections spécialisées et, très important, les organisations représentant les auxiliaires — la CDHA et la CDAA.»

Augmentation du nombre de membres

Le Dr Thompson dit: l'augmentation du nombre de membres «doit continuer, si nous voulons représenter tous les dentistes du Canada, et il est évident que notre efficacité à exercer des pressions est directement proportionnelle au nombre que nous représentons. Nous savons, après avoir réussi à changer l'orientation du gouvernement dans le projet d'imposition des bénéfices dentaires, que nous pouvons gagner si nous exerçons suffisamment de pressions.»

Il insista également sur l'importance de l'envoi de lettres personnelles pour soutenir l'action d'un groupe de pression, en ces termes: «Par conséquent, je demande que lorsque d'autres problèmes importants se poseront, qui nécessiteront ou bénéficieront de lettres écrites à vos députés et à d'autres, vous écriviez ces lettres.»

Revenus semblables pour les dentistes canadiens et américains

En général, le dentiste canadien à son compte touche un revenu plus élevé que naguère. Malheureusement, sa collègue n'est pas aussi fortunée que lui, même si son revenu s'est également accru.

D'après une étude faite récemment par Santé et Bien-être social Canada et portant sur les salaires des médecins canadiens, la majorité des dentistes féminins du pays ont obtenu, en moyenne, un revenu net allant de 25 000\$ à 49 999\$ en 1980. La même

année, par contre, les dentistes masculins gagnaient plus de 50 000\$. Le revenu brut moyen des premiers s'élevait à 76 000\$ et celui des seconds, à 130 200\$.

La même étude a encore révélé que la moyenne des femmes exerçant une profession en dentisterie, en droit, en comptabilité, en architecture et en ingénierie était inférieure à la moyenne des femmes médecins. Seulement six pour cent des dentistes canadiens sont des femmes.

Dans l'ensemble, les dentistes ont obtenu un revenu net moyen de 56 977\$ et un revenu brut moyen de 127 369\$. Par ailleurs, le dentiste indépendant a dû assumer, en moyenne, des dépenses annuelles s'élevant à 71 875\$.

Aux Etats-Unis, le revenu moyen des dentistes atteignait 57 510\$ en 1981, suivant l'étude sur les cabinets dentaires effectuée en 1982 par le *Bureau of Economic and Behavioral Research* de l'Association dentaire américaine.

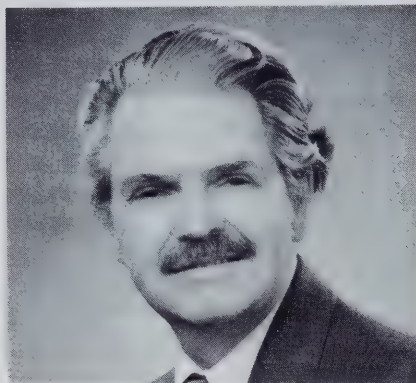
Le Dr. P. Ralph Crawford est le nouveau président-élu de l'ADC.

Le Dr. Crawford a connu une carrière variée, depuis son enfance, à Winnipeg, son lieu de naissance en 1928.

Il a été mêlé aux affaires de théâtre, comme ministre civil, dans le sud de la Saskatchewan, puis est devenu dentiste et chargé de cours à temps partiel à l'Université.

Il fréquenta l'école secondaire de Winnipeg, le collège Notre Dame à Wilcox, Saskatchewan, l'Université de Saskatchewan et l'Université d'Ottawa où il obtint son B.A. en 1959.

Le Dr. Crawford décrocha son DMD avec honneur, à l'Université du Manitoba, en 1964. Et depuis, consacre surtout son temps à la pratique générale, à Winnipeg. Il a été chargé de cours à temps partiel et clinicien à la Faculté Dentaire de l'Université du Manitoba en prothèse amovible. Il est devenu, récemment, coordinateur du programme de gériatrie dentaire. Il a été membre du Bureau des Gouverneurs de l'ADC depuis 1979 et membre du Conseil Exécutif depuis 1981.



Le Dr P.R. Crawford

Le Dr. Crawford était président du congrès national de l'ADC en 1978.

Très actif à l'association dentaire du Manitoba.

Le Dr. Crawford, pendant plusieurs années, a été un membre très actif de l'Association dentaire du Manitoba; il en était le président en 1976. Il a servi comme président de plusieurs comités de l'association, soit: médiation, l'éthique, relations publiques, clinique de prothèse et législation.

Il a siégé comme représentant du Manitoba au Bureau des Directeurs de BNED, en 1978-80 et comme examinateur en prothèse de 1976 jusqu'à présent.

Le Dr. Crawford s'est vu décerner le Prix Mérite du Président (Dentiste de l'année) à deux reprises, en 1975 et 1978.

Il est Fellow et membre du Collège International des Dentistes, un officier exécutif de l'Association Canadienne des Prosthodontistes et un membre-associé de l'Académie Américaine de l'Implantation.

En 1978, il est nommé au conseil des directeurs de l'association des anciens de l'Université du Manitoba, dont il est, présentement, président.

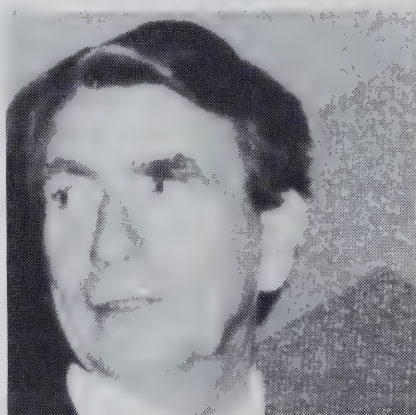
Il est, de plus, un membre actif du Club Rotary, de la Fraternité Omicron Kappa Upsilon et Charter Beta Iota de Xi Psi Phi. Le Dr. Crawford est marié à Olga, son épouse; ils ont deux enfants. Patrick possède un MSc en Entomologie et Aileen a récemment gradué du secondaire.

Le Dr. Thorsten Aggerdyd, Président de la Fédération Dentaire Internationale est l'invité d'honneur au congrès de l'ADC.

L'Invité distingué par excellence, au congrès de l'Association Dentaire Canadienne et le Bureau des Gouverneurs a eu des propos élogieux pour ses hôtes.

Le Dr. Aggerdyd affirma que l'Association Dentaire Canadienne a toujours été un membre intéressé de la Fédération Dentaire Internationale, en même temps qu'elle y apportait un support appréciable. Elle est aussi l'organisateur habile du Congrès Dentaire Mondial Annuel; elle fournit de plus, plusieurs de ses membres aux différentes activités de la Fédération: conseils, commissions etc.

Il ajouta que l'ADC avait sagement



Le Dr T. Aggerdyd

conseillé la Fédération sur la façon de s'organiser et que l'intervention de

l'ADC avait aidé la Fédération à sortir de l'impasse, lorsque l'Association Dentaire Américaine, retira, temporairement, son appui à la Fédération et qu'elle menaçait de ne plus en être membre.

Pour toutes ces raisons, ajoute le Dr. Aggerdyd, une de ses premières visites personnelles était réservée à l'ADC.

Autocritique.

À cause de l'incident ADA, la Fédération décida de réexaminer ses structures, "le travail que nous devions faire, les relations entre la Fédération et ses membres associés, les

relations entre le "leadership" de la Fédération et le "leadership" des organisations membres. Il fallait aussi considérer la très importante collaboration entre la Fédération et l'Organisation Mondiale de la Santé, qui, à titre d'organisme décisionnel devait être reconsidéré et discuté."

On décida, entre autres choses, qu'il devait y avoir plus de contact personnel entre le président de la Fédération et les directeurs des organisations membres et aussi une meilleure communication dans le champ des activités.

Une étroite coopération entre la Fédération et l'Organisation Mondiale de la Santé est essentielle, dit le Dr. Aggerd, parce que: "Nous avons entrepris, ce qui, à date, est notre plus grand projet. Pour la première fois, il y a quelques années, la Fédération et par conséquent, la profession à travers le monde, était impliquée dans un programme global de santé. OMS (Organisation Mondiale de la Santé) se fixa son but le plus ambitieux: la santé pour tous en l'an 2000. À toutes ces activités mondiales, OMS décida d'y joindre la santé buccale et de coopérer avec la Fédération pour la réalisation de ses projets en l'an 2000." Conditions requises pour le succès de ces projets: le support volontaire des associations membres de la Fédération, d'accepter la Fédération comme "l'Organisation" regroupant toutes les associations nationales du monde et d'obtenir une étroite coopération de OMS qui, en retour, accepte la FDI comme partenaire représentant l'absolue majorité des associations dentaires du monde."

Amélioration de la santé buccale.

Les objectifs de OMS et FDI doivent être fixés à la lumière des améliorations de la santé buccale, dans les pays industrialisés comparées à celles des pays en voie de développement. Le Dr. Aggerd explique, en disant qu'en 1967, en Suède, des éco-

liers de 16 ans avaient, en moyenne 14 obturations de classe 11. Dans le même groupe d'âge, en 1978, il y en avait, en moyenne 1.2. Dix milles dentistes desservent une population de 8.3 millions en Suède tandis qu'en Ethiopie, il y a quinze dentistes pour desservir une population de 30 millions de personnes. Le Dr. Aggerd ajoute, que sur tout le continent africain, il y a un dentiste par 100,000 habitants.

Le projet coopératif international de santé buccale travaille à résoudre ce problème de "santé buccale pour tous en l'an 2000" dit-il.

Abondance de dentistes.

Un surplus de personnel dentaire est un autre problème auquel il faut faire face. "Nous venons de commencer une époque dramatique où il y a un surplus de dentistes et demande restreinte de soins; avec, comme résultats, de jeunes dentistes sans emploi". (En Suède)" La même situation se retrouve au Danemark et elle s'étend graduellement aux autres pays Scandinaves. Dans le journal dentaire Norvégien, il y a quelques mois, un rapport d'une discussion à Copenhague portait le titre: "Plus de 3000 dentistes sans emploi en Scandinavie, dans cinq ans."

Le Dr. Aggerd commenta les activités de l'ADA en regard de la trop faible demande de services dentaires aux États-Unis et les statistiques, démontrant qu'à peu près 50 pour cent de la population a recours aux services dentaires. "La proportion est à peu près la même en Scandinavie, ainsi que dans plusieurs autres pays".

Échange d'information.

La fédération croit que les organisations membres devraient encourager l'échange d'information sur les moyens à prendre pour améliorer ces statistiques. Le Dr. Aggerd mentionne qu'au congrès annuel, à Helsinki, l'an prochain, une session spé-

cial du programme aura pour titre: "Faire tomber les barrières empêchant l'accès aux services de santé buccale dans les pays industrialisés." Il ajoute; "Il est indiscutable que la plupart, sinon toutes les activités pertinentes à ce programme seront organisées sous l'égide des associations nationales". Cependant, "la Fédération, avec une large vision de la situation dans plusieurs pays du monde et la connaissance de la nature du travail en cours, croit qu'elle doit aider la profession dentaire en organisant des réunions où on analyse et coordonne les activités."

Les paramètres de ces objectifs comprennent une liste d'activités visant à convertir les besoins courants en demandes de traitement; pour étude plus poussée et possible adaptation aux besoins nationaux des associations membres intéressées.

Page couverture

La photo de la page couverture a capté l'un des moments inoubliables du Congrès de l'ADC 1983, à Vancouver, la Fantaisie présentée lors de la soirée du président.

La toile du fond fait voir la saisissante silhouette du centre-ville de Vancouver.

Comme la plupart des photos du congrès paraissant dans ce numéro, cette photo a été prise par Wayne Wetstone et réalisée dans les ateliers de sa firme, le *Challenge Group* de Vancouver.

Rapport du directeur général sur l'assemblée annuelle 1983 du conseil d'administration — Points saillants

Voici un rapport sur les points saillants de l'Assemblée générale du Conseil d'administration de l'ADC, qui a eu lieu les 23 et 24 septembre à Vancouver.

FINANCES

Le Conseil approuve le budget pour 1984, qui prévoit une augmentation de 25% des cotisations.

Pour l'année 1984, on prévoit \$2,892,778 de recettes, alors que les dépenses pour activités et services destinés aux membres s'élèvent à \$2,625,289. L'état vérifié des comptes pour 1983 sera soumis en avril et publié dans un exemplaire suivant du Journal.

ADHÉSIONS

Les membres du Conseil d'administration prennent connaissance des résultats de la Campagne d'adhésions 1983. La tendance à la diminution du nombre des membres semble s'être arrêtée et on met en oeuvre un système destiné à conserver les membres volontaires, à regagner les anciens membres et à attirer les dentistes qui n'ont jamais fait partie de l'Association. La Campagne de l'année prochaine insistera sur le fait qu'une organisation composée de membres n'est efficace que dans la mesure où tous ses membres s'impliquent.

La définition de Membre étudiant est changée afin de tenir compte des étudiants post-gradués à plein temps.

Le Conseil approuve également que le 31 mars devienne la date à laquelle, officiellement, toutes les personnes qui n'ont pas payé leur cotisation sont exclues de l'Association. Ces personnes ne pourront plus bénéficier gracieusement de services réservés aux membres.

COMITÉ SUR LES DENTISTES SALARIÉS

Le Conseil approuve la création

d'un Comité permanent du Conseil exécutif, le Comité sur les dentistes salariés, chargé d'étudier les problèmes de ce groupe particulier. On définit les dentistes salariés comme des dentistes qui sont employés par des agences municipales, provinciales ou fédérales (y compris les universités et les collèges), et dont au moins 80 pour cent du temps est consacré à une activité salariée. On met l'accent sur le besoin d'améliorer les communications et les services destinés à ces dentistes.

COMITÉ AD HOC sur LES SERVICES HOSPITALIERS

Les membres du Conseil d'administration considèrent le rapport initial du Comité ad hoc sur les services hospitaliers, qui recommande une restructuration des Conseils actuels sur l'éducation et les services hospitaliers, en un Conseil sur l'agrément et un Conseil sur les services éducatifs. On prend la décision de réunir plusieurs membres des deux Conseils et de demander l'opinion des autres organisations intéressées, qui sont représentées à l'Assemblée du Conseil d'administration. Un deuxième rapport sera présenté à la réunion intérieure d'avril 1984 à Montréal.

IMPOSITION

On informe le Conseil que le Comité sur l'imposition s'oppose toujours aux méthodes utilisées par Revenu Canada pour déterminer les dépenses de Sociétés de gestion éligibles dans la marge de profit.

Dans un autre domaine, le Conseil apprend également qu'un mémoire sur la retraite avant paiement de l'impôt sera présenté au Groupe de travail sur la réforme des pensions le 13 octobre. Ce Comité inter-professionnel, composé de l'ADC, de l'AMC, de

l'ACCA et de l'ABC, a été créé et est présidé par l'ADC.

STATUTS et RÈGLEMENTS

Le Conseil approuve l'adoption du règlement No 1, modifié le 23 septembre 1983. Ce règlement contient un certain nombre de recommandations qui ont été faites par des Gouverneurs, des Présidents de conseils et d'autres parties intéressées. Le document modifié sera très bientôt disponible.

SERVICES D'INFORMATION

Le Conseil discute une proposition de Programme de prise de conscience dentaire, qui sera élargi afin de fournir des renseignements sur une expérience récente de l'Association dentaire américaine. On insiste sur le fait que de tels programmes nécessitent des groupes cibles bien définis et des objectifs spécifiques si on veut qu'ils produisent des résultats tangibles.

CONSEIL de RÉDACTION

Le Conseil d'administration approuve que l'on cesse d'envoyer gratuitement le Journal de l'ADC aux non membres. Cette décision est basée sur l'importance du Journal comme service aux membres. On pense que ce service perd beaucoup de sa valeur s'il est distribué à tous les dentistes du pays, qu'ils soient membres ou pas.

PROGRAMME d'AGRÈMENT de L'ADC-ACNOR

Les Gouverneurs approuvent l'application d'un programme volontaire d'agrément de matériel dentaire entrepris par l'ACNOR au nom de l'Association. L'une des conditions de ce programme est que l'ADC n'aura absolument rien à payer pour le créer ou le maintenir.

SYMPOSIUM "L'USAGE du MERCURE et des AMALGAMES en DENTISTERIE"

Le Conseil sur les matériaux et les procédés dentaires soumet les résultats d'un symposium qui a eu lieu sur l'usage du mercure et des amalgames en dentisterie. Le but de cette activité était d'étudier la possibilité que les amalgames dentaires soient toxiques si on les utilise comme matériau de restauration. Des experts dans ce domaine se sont rencontrés à Ottawa pour discuter ce sujet et un rapport était publié dans ce Journal.

AGRÈMENT D'AUXILIAIRES

Les Gouverneurs approuvent que le Conseil sur l'éducation soit autorisé à enquêter sur tous les aspects des

programmes d'assistance et d'hygiène dentaire destinés aux auxiliaires dans les provinces où un Comité des permis a le droit de donner un permis à ces auxiliaires ou de les enregistrer lorsque c'est nécessaire, et où le programme d'études se conforme aux critères établis par ce Comité provincial.

DIRECTIVES sur le CONTRÔLE des RADIATIONS DANS le CABINET DENTAIRE

Le Conseil approuve des directives sur le contrôle des radiations dans le cabinet dentaire, présenté par le Conseil sur les soins de la santé. Ont contribué à ce document des représentants provinciaux et un membre de la section spécialisée en radiologie buccale. Ces directives seront publiées dans le Journal et seront envoyées aux membres sur demande.

DIRECTIVES sur LES PROCÉDURES de STÉRILISATION DANS les HÔPITAUX

Le Conseil examine une ébauche de document de directives sur les procédures de stérilisation dans les hôpitaux. Ce document sera élargi et révu avant d'être soumis en avril 1984 à l'approbation finale des Gouverneurs.

AUTRES AFFAIRES

Le Conseil approuve la proposition de l'Association des chirurgiens dentistes du Québec, que l'ADC invite la Fédération dentaire internationale à tenir son congrès de 1991 à Montréal, Québec. Cette décision est transmise au Conseil exécutif afin qu'il prenne les mesures appropriées.

L'anesthésie dentaire sujet d'un rapport à la télévision américaine

Un rapport sur la sécurité des anesthésiques dentaires a récemment fait l'objet d'une émission du programme 20-20 de la télévision américaine.

La sécurité des anesthésiques dentaires est devenue un sujet de discussion après que l'on ait signalé, aux États Unis, des cas de lésions cérébrales ou de décès dus à l'action de médicaments dans des cabinets dentaires.

L'une des 1000 personnes interrogées par les journalistes de 20-20 pour le rapport était Thomas Ginley, PhD, qui est Directeur du département de politique et de planification de l'Association dentaire américain. L'ADA a également fourni des renseignements de base au programme de télévision, parmi lesquels les "Guidelines for Teaching the Comprehensive Control of Pain and Anxiety in Dentistry" (Directives pour enseigner le contrôle global de la douleur et de l'anxiété en médecine dentaire) de l'Association. Ce document donne, en détails, les recommanda-

tions de l'Association pour un bon enseignement aux dentistes des techniques modernes d'anesthésie.

«Les directives sont un énoncé clair et complet de ce que nous savons être essentiel à tout programme d'éducation du contrôle de la douleur,» a dit le Dr John M. Coady, Directeur exécutif de l'ADA. «Elles illustrent notre objectif professionnel, qui consiste à assurer que les dentistes ont une éducation complète et adéquate pour satisfaire les besoins de leurs patients.»

Faisant des commentaires sur l'entrevue accordée au programme par l'ADA, le Dr Coady a dit: «Nous pensons que les membres attendent de leur Association qu'elle présente le point de vue de la médecine dentaire, et cela n'aurait pas rendu service à la profession d'éviter la controverse et de ne pas prendre des mesures.»

Représentant l'ADA devant les caméras, le Dr Ginley insista que l'Association ne défend pas les abus d'anesthésiques par certains membres de la profession. «L'une des fonctions de

l'Association est d'assurer que les diplômés en médecine dentaire aient les compétences nécessaires pour livrer les soins dentaires, et non pas de défendre leur incompétence ou leur négligence,» a-t-il dit.

Cependant, il mit l'accent sur le fait que l'ADA n'est pas un organisme octroyant des permis, bien que 18 états aient adopté les directives susmentionnées de l'Association comme élément d'établissement des conditions d'octroi de permis.

L'un des anesthésiques faisant l'objet de discussions fut la drogue alphaprodine hydrochloride, que l'on ne doit pas utiliser sur les patients âgés de moins de 12 ans. Après un certain nombre de décès de patients de cet âge aux États-Unis, le fabricant retira le médicament du marché, et ne le réintroduisit que lorsqu'un certain nombre de pédiatres éminents prirent position en faveur de l'anesthésique.

La deuxième partie du programme fut consacrée à cette drogue.

En bref —

Les dentistes de Terre-Neuve semblent particulièrement intéressés à la question des ressources en personnel, tout comme le sont également leurs collègues des trois autres provinces maritimes.

Le questionnaire sur les ressources en personnel des Maritimes qui a été adressé au début de l'année aux associations dentaires des provinces maritimes a été accueilli favorablement par les dentistes de cette partie du Canada.

Des 125 questionnaires distribués à Terre-Neuve, 92 pour cent, soit 115, ont été remplis et retournés. Au Nouveau-Brunswick, en Nouvelle-Écosse et dans l'Île-du-Prince-Édouard, les réponses ont été nombreuses également. Au Nouveau-Brunswick et dans l'Île-du-Prince-Édouard, le pourcentage des questionnaires remplis s'est élevé à 72 pour cent, alors qu'en Nouvelle-Écosse, il était légèrement plus bas, soit 70 pour cent.

Les données recueillies ont été compilées par le Dr John Isenor à l'Université Dalhousie et un rapport préliminaire a déjà été rédigé. Très bientôt, des représentants des quatre provinces maritimes se réuniront pour discuter ce premier rapport et préparer la version définitive.

L'Ordre des dentistes du Québec a récemment donné des détails sur les règlements qui régissent la publicité des dentistes dans cette Province.

En vertu de ces règlements, les dentistes peuvent faire figurer les renseignements suivants sur leur carte ou sur leur enseigne professionnelle:

- leur nom, et, le cas échéant, le nom de leur, ou leurs associés;
- leur profession;
- leur spécialité (reconnue par l'Ordre);
- leurs titres universitaires;
- l'adresse de leur cabinet de consultation, leurs heures d'ouverture

et leur numéro de téléphone normal et en cas d'urgence;

— le symbole de l'Ordre et de la médecine dentaire;

— les termes "Clinique dentaire" ou "Centre dentaire" si ces termes sont accompagnés de leur nom ou de celui de l'un de leurs associés, le cas échéant.

Ne sont manifestement pas permis par les règlements sur une carte ou une enseigne professionnelle, les renseignements suivants:

- Service généraux dentaires;
- Exercice de la médecine générale dentaire pour les adultes et les enfants;
- Cabinet dentaire ou clinique dentaire ou Centre dentaire suivi du nom d'une rue ou d'une ville;
- Le symbole graphique du métro à Montréal (mais on peut mentionner dans l'adresse la station de métro la plus proche du cabinet.).

Est interdite en vertu des règlements du Québec toute publicité sur les menus de restaurants, les boîtes d'allumettes, les crayons, les brosses à dents, les cartes de bingo, les calendriers, les couvertures en plastique d'annuaires et tout autre matériel imprimé "de nature comparable".

Pour de plus amples renseignements sur ce règlement, contactez l'Ordre des dentistes du Québec.

Le Dr Irwin Margolese est le nouveau président de la Fédération des sociétés dentaires du grand Montréal qui comprend les directeurs exécutifs des trois sociétés dentaires de la métropole québécoise, la Société dentaire de Montréal, le *Montreal Dental Club* et la Société dentaire de Mont-Royal.

Outre ce nouveau titre, le Dr Margolese en cumule d'autres, puisqu'il est président de la Société dentaire de Mont-Royal, directeur de l'Éducation permanente de la Société canadienne d'analgésie et consultant canadien de la firme *Clinical Research Associates* de Provo, dans le Utah. De plus, il vient de terminer ses mandats comme administrateur de

l'ADC et comme celui de l'Association des chirurgiens dentistes du Québec. Enfin, il est praticien général à Montréal et enseigne comme adjoint clinique aux départements dentaires de l'Hôpital Général juif et de l'Université McGill.



Le Dr Irwin Margolese

Les autres membres du Conseil exécutif de la fédération sont le Dr Jean-Guy Lahaie, président de la Société dentaire de Montréal et le Dr David Blair, président du *Montreal Dental Club*, ainsi que les Drs Herb Borsuk, Arthur Greenspoon, André Huot, Robert Miller, Tom Oliver et Pierre Rochon.

Les dentistes du Québec ont pu se procurer, cet automne, un bulletin conçu à l'intention de leurs patients.

L'Ordre des dentistes du Québec espère qu'il servira d'instrument de communication entre les dentistes et leurs patients et qu'il établira de meilleurs rapports entre eux.

Le bulletin se vend à un prix modique et est publié dans les deux langues officielles. Il est disponible auprès de l'ODQ.

L'Association canadienne des chirurgiens buccaux et maxillofaciaux vient d'élire ses nouveaux officiers pour une période de deux ans.

Le nouveau président est le Dr Pierre Surprenant, de Sherbrooke (Québec). Il succède au Dr Murray Mickleborough, d'Edmonton (Alberta), qui assumera le rôle de président sortant. Le président désigné est le Dr

Ronald Warren, d'Edmonton également.

Le Dr Aron Gonshor, de Montréal (Québec), et le Dr Bernard Lyons, de Windsor (Ontario), ont été respectivement élus secrétaire et trésorier.



Deux chercheurs de la Faculté de médecine dentaire de l'Université de Toronto ont trouvé un vernis dentaire anti-microbien.

Les Docteurs Tom Balanyk, étudiant gradué, et James Sandham, membre de la Faculté, ont découvert un vernis qui libère des agents antimicrobiens à une vitesse contrôlée dans la bouche, pendant une période d'environ une semaine. Ce vernis est destiné à éliminer de la bouche humaine le *Streptococcus mutans* et d'autres agents pathogènes dentaires ou périodontiques.

Ils ont demandé à la Direction générale de la protection de la santé du Ministère fédéral de la Santé et du bien-être social d'entreprendre des essais cliniques de deux formes de ce vernis.

La Fondation des innovations de l'Université de Toronto a entrepris de développer l'utilisation commerciale de ce produit.



Avis aux chercheurs dentaires

La *Ernest C. Manning Awards Foundation* récompense chaque année les Canadiens qui lancent un nouveau concept, une nouvelle technique ou un nouveau produit utile au pays et à la société. Subventionnée par des personnes et des compagnies du Canada entier, la fondation est un organisme national à but non lucratif comptant onze administrateurs qui habitent partout au Canada. Son comité de sélection comprend six membres.

Cette année, la fondation a reçu plus de 100 candidatures que le comité a toutes jugées impressionnantes. Le lauréat du prix de 75 000\$ est Kenneth Kasha, de Guelph, en Ontario, qui a trouvé un moyen d'améliorer les récoltes d'orge pour

solutionner le problème de la faim dans le monde. Sa méthode pour produire de nouvelles espèces d'orge en deux fois moins de temps qu'auparavant a mis le Canada en vedette dans le domaine de la génétique des plantes.

Des mentions honorables ont été accordées à Lorne Whitehead, de Vancouver, en Colombie-Britannique, qui a invité un système unique en son genre pour orienter la lumière du prisme, et à Murray Moo-Young, de Waterloo, en Ontario, qui a mis au point une nouvelle technique pour convertir les déchets celluloseux en protéines comestibles.

Pour obtenir d'autres renseignements sur le programme de la fondation, veuillez contacter: George Dunlap, directeur exécutif, Ernest C. Manning Awards Foundation, 2300, 639 — Fifth Avenue S.W., Calgary (Alberta); (403) 266 7571.

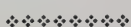


Une organisation de la Faculté dentaire de l'Université de Western Ontario a eu lieu en 1983.

La Faculté n'a plus de départements, mais l'école a toujours ses divisions. Une Division de biologie buccale a été nouvellement créée.

Dans cette réorganisation, destinée à mieux satisfaire les besoins de la faculté, on a également créé quatre nouveaux postes de médecine dentaire. Le Dr Ronald E. Jordan a été nommé Doyen associé, affaires cliniques, le Dr David W. Banting, Doyen associé, affaires académiques, le Dr John T. Hamilton, Doyen adjoint, recherches et le Dr Gerald Z. Wright, Doyen adjoint, éducation permanente.

Il s'est passé, cette année, un certain nombre d'autres événements notables à l'U.W.O. notamment la création d'une unité de recherches de douleur faciale. Cette unité entreprendra aussi bien des recherches cliniques que des recherches scientifiques de base dans ce domaine.



Des experts représentant onze pays membres de l'Organisation mondiale de la santé (OMS) se sont réunis à l'Université de la Colombie-Britannique, du 4 au 10 juillet 1983, pour élaborer un nouveau programme de santé bucco-dentaire et mettre au point des stratégies pour l'avenir. La Faculté dentaire de l'Université de la Colombie-Britannique agissait comme hôte et le débat était présidé par le doyen, le Dr G.S. Beagrie.

L'assemblée comprenait, outre des démonstrations, des discussions avec des membres de la faculté sur différents sujets, y compris le Système de formation par simulation du rendement qui a été lancé par l'Université de la Colombie-Britannique et qui a ensuite fait le tour du monde. La deuxième faculté dentaire de l'Amérique du Nord, celle de l'Université de Maryland à Baltimore, aux États-Unis, vient d'adopter le système pour ses nouveaux étudiants. L'Université de la Colombie-Britannique prévoit échanger des bandes et des techniques pour les étudiants du baccalauréat et pour les étudiants en éducation permanente. Elle prévoit également échanger des professeurs.

Le Sous-groupe d'experts de la santé bucco-dentaire de l'OMS a ouvert un nouveau Centre de services dentaires dans la province Chiang Mai, en Thaïlande. À cause de l'importance d'un tel projet, l'Agence canadienne de développement international a appuyé financièrement l'assemblée tenue à l'Université de la Colombie-Britannique. Outre le Dr Beagrie qui représentait le Canada, les participants étaient le Dr P. Baerum, de la Norvège; le Dr J.S. Bulman, de l'Angleterre; le Dr H.A. Burhani, de la Syrie; le Dr B. Gomez Herrera, du Venezuela; le Dr S.A. Hussein, du Yémen; le Dr A. bin Johari, de la Malaisie; les Drs Y. Kawamura, D. Beach et M. Ishida, du Japon; les Drs E.L. Reese et G. Gillespie, des États-Unis; le Dr A. Thaworn, de la Thaïlande; le Dr D.E. Barmes et Mme J. Sardo-Infirri, de la Suisse.



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RCDC Symposium on Periodontal Diseases — September 26, 1983 — Vancouver

In the knowledge that Periodontal Diseases constitute a major hazard to the human dentition, the Royal College of Dentists of Canada decided to promote a Symposium on this subject and make this part of the programme for the Canadian Dental Association Annual Meeting in Vancouver, British Columbia.

The program was arranged by Dr. G.S. Beagrie and the morning consisted of a series of basic science papers which set the stage for the afternoon sessions which examined Periodontal Education, Prevention and Treatment.

The first part of the Symposium looked at the development of periodontium and the activities of the cells which make up these tissues. The microbiology of the disease process was next examined and this was followed by a review of the immunopathology. Because of research in these basic sciences, education and treatment of the disease process has greatly altered over the last two decades. Such was in evidence from the papers presented by the afternoon speakers.

The Symposium was supported by the Colgate-Palmolive Company of Canada, the John O. Butler Company, and National Health and Welfare. The Royal College of Dentists of Canada is indebted to these organizations for their financial help. The symposium was extremely well attended both by Fellows and Members of the College, and delegates of the C.D.A. Meeting.

The following articles represent summaries of some of the papers on periodontal diseases which were presented at the symposium.

Etant donné que les maladies parodontaires constituent un important danger pour les dents, le Collège royal des dentistes du Canada a décidé de tenir un symposium sur ce sujet dans le cadre du Congrès annuel de l'Association dentaire canadienne qui, cette année, a eu lieu à Vancouver, en Colombie-Britannique.

Le programme de la journée a été préparé par le Dr G.S. Beagrie et, le matin, on a présenté une série d'exposés scientifiques en préparation des séances de l'après-midi consacrées à l'étude de l'enseignement qui se donne sur les maladies parodontaires, de leur prévention et de leur traitement.

Durant la première partie du symposium, on s'est arrêté à la formation du parodonte et à la vie des cellules qui en composent les tissus. On a ensuite étudié le développement de la maladie du point de vue microbiologique, puis révisé l'immunopathologie. Grâce aux recherches effectuées dans ces sciences de base, l'enseignement et le traitement du développement de la maladie ont grandement évolué durant les deux dernières décennies. C'est ce qui est ressorti des exposés présentés l'après-midi.

Le symposium a été commandité par la compagnie *Colgate-Palmolive* du Canada, la compagnie *John O. Butler* ainsi que Santé et Bien-être social Canada à qui le CRDC est redevable pour l'appui financier reçu. Le symposium a réuni un auditoire nombreux composé de membres du CRDC et de congressistes de l'ADC.

Les articles suivants sont des résumés de certains exposés sur les maladies parodontaires présentés au symposium.

Update on the Proliferative and Migratory Behaviour of Cells of the Periodontium

D.M. Brunette,
Faculty of Dentistry
University of British Columbia

The migration of epithelium down the surface of natural or artificial roots has been regarded as a major factor in tooth and dental implant loss. For many years it has been recognized that the migration of cells *in vitro* can be controlled by the shape of the surface to which they are attached. This phenomenon has been called contact guidance. In this regard it is noteworthy that the commonly accepted methods of scaling and root planing leave a surface with small grooves of varying sizes with the most prominent groove having a width of approximately 10 μ . The grooves have a cervical to apical orientation. On the basis of current knowledge of cell behaviour, such a pattern would be expected to direct the migration of epithelial cells down the root. However it is possible that contact guidance of cells could be used to impede the migration of epithelium. To test this hypothesis, grooved surfaces were produced using the techniques employed in the fabrication of microelectronic components. Titanium was chosen as the test surface because of the reported high rate of clinical successes of dental implants made from this material.

It was found that grooved surfaces of specific dimensions could direct or even change the direction of migration of epithelium growing from human gingival explants. One practical application of these findings would appear to lie in the design of the surface of dental implants where

a grooved pattern of specified dimensions applied circumferentially around the root might impede the apical migration of epithelium. Recent work has indicated that the fibroblasts of the periodontal ligament are also migratory cells. This was demonstrated by labelling cells using tritiated thymidine (which gets incorporated into cellular DNA) and measuring their location at various times after labelling. The progenitor cells of the periodontal ligament fibroblast populations are thought to be located within 10 microns of blood vessels. Ultrastructural studies by Dr. Tim Gould (J. Dental Res. 62:873, 1983) of these progenitor cells indicate that, as a general rule, they are relatively undifferentiated cells with a high nucleus to cytoplasm ratio. Measurements of the location of progenitor cells and their descendants indicate that after synthesizing DNA, some of the progenitor cells migrate away from the blood vessels as they differentiate and mature. Moreover, by using osmotic minipumps to continuously deliver tritiated thymidine for up to 42 days it was discovered that the fibroblasts of the periodontal ligament constitute a self renewing system. Thus it appears that in common with other cell renewal systems, the fibroblasts of the periodontal ligament have definite spatial organization with cells being born, maturing and probably dying in specific locations.

The Immunopathology of Periodontal Disease. Current Theories

Dr. Douglas Deporter
Faculty of Dentistry,
University of Toronto

There is considerable confusion in the literature on the immunopathology of human periodontal disease. This is partly due to the lack of a suitable animal model system, and this has meant that the majority of investigators have used humans as experimental subjects. This has its limitations in that one is restricted to making static clinical observations on naturally occurring diseased and healthy sites, and trying to correlate these findings with the coincident immune findings. Furthermore, one doesn't know whether the disease is currently active or inactive at the time of investigation, and whether differences in immune parameters between control and diseased subjects are the cause of, the result of or unrelated to the disease process.

Considerable attention has been directed towards the possibility that periodontal disease may be the result of a cell-mediated immune and/or humoral immune reaction to specific dental plaque antigens. During the 1970's numerous investigators studied the effects of autologous plaque antigens and antigens prepared from selected plaque organisms on peripheral blood lymphocytes from control subjects and patients with varying degrees of periodontal disease. Based on the initial findings, an hypothesis was developed by Lehner and others that chronic exposure to plaque antigens would lead to sensitization of host T lymphocytes to these antigens; and ultimately to lymphokine-mediated tissue destruction when these same T lymphocytes encountered the sensitizing antigens in the periodontal tissues. Many conflicting results were published, however, and recent work suggests that much of the earlier data may have been the result of culture-related artefact. A growing number of workers in this field are

suggesting that rather than being antigen-specific, lymphocyte stimulation in periodontal disease may be the result of exposure to non-specific stimulators of lymphocyte function released from plaque organisms. Furthermore, it has been suggested that these "polyclonal activators" will stimulate primarily B lymphocytes to produce both antibodies of a wide range of antigenic specificities and lymphokines, including chemotactic factors, cytotoxic factors, macrophage activating factors and bone resorbing factors.

The significance of local antibody synthesis within the periodontal lesion remains to be determined, but it appears that many of the antibodies produced locally are not specific to plaque antigens. If this proves to be the case, it would seem unlikely that Arthus hypersensitivity has a major impact in the pathogenesis of periodontal disease, and that periodontal destruction may be primarily mediated by the effects of lymphokines.

There may be a relationship between the titers of circulating antibodies to antigens of certain plaque organisms and select periodontal disease states. Thus, for example, there is often a link between circulating antibodies to *Actinobacillus actino-mycescomitans* and juvenile periodontitis. Also, recent reports suggest that there is often a high circulating antibody titer to *Bacteroides gingivalis* in both periodontitis and rapidly progressing adult periodontitis. However, there is considerable variation in the titers between patients and the reasons for this variation remain to be elucidated. Furthermore, whether the high titer is related to active or inactive disease, and therefore whether it is primarily protective or not is unknown.

Periodontal Disease: A specific microbial infection?

Barry C. McBride

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Accumulations of bacteria adjacent to and on the gingival tissue initiate and maintain the periodontal disease state. Despite our understanding of this basic fact, the specific nature of the subgingival flora remains poorly understood. One reason for this situation is the complexity of the flora. Moore (4) found 264 distinct bacterial isolates in subgingival samples, 186 of these did not fit into defined taxonomic categories at the species level. Socransky (5) has suggested that there may be as many as 300 to 400 species living within the sulcus. There is general consensus that the disease is associated with higher proportions of gram (-) organisms.

The development of new taxonomic tools has led to the identification of a many new species, unfortunately this has created an even more confused picture and has magnified the problem of identifying specific etiologic agents. Some of these technical difficulties may be overcome if "Banks" of specific non-cross reacting monoclonal antibodies can be developed. These antibodies would be used to speciate and quantitate microorganisms in crevicular samples without the need for culturing and biochemical analysis.

Another problem confronting the microbiologist is the number of bacterial species possessing the pathogenic properties which are considered to be associated with the disease process. For example, lipopolysaccharide, a component of all gram (-) outer membranes, is known to induce inflammation, stimulate bone loss and to modulate the immune response. Enzymes with the potential to hydrolyze macromolecular constituents in the periodontium are produced by a number of subgingival bacteria. Metabolites which have cytotoxic activity, e.g., acids, indole and sulfhydryl compounds are produced by the majority of gram (-) anaerobic organisms in the sulcus. Thus, we are confronted with a bewildering array of microorganisms many of which possess pathogenic properties.

A pessimist would suggest that the disease is microbiologically non-specific but there is considerable evidence that there are unique populations of microorganisms associated with the different periodontal diseases. A recent study (3) has shown that the microbial flora associated with periodontitis in diabetics is different than that observed in a non-diabetic population. Pregnancy gingivitis is associated with changes in the microbial flora (1). In every case, gram (-) facultative or anaerobic organisms appear to predominate at the lesion. Given the unique nature of the flora associated with the diseases and the many similarities in the pathology, it is tempting to speculate that there are many periodontopathic organisms and that specificity is related to unique environmental conditions selecting a specific microbial population. Changes in levels of hormones would exemplify an environmental change that could select for a specific microbial flora (2).

An understanding of how these subtle changes influence microbial populations should lead to a clearer definition of the bacterial etiology of periodontal disease.

REFERENCES

1. Korman, K.S. and W.J. Loesche. 1980. The subgingival microbial flora during pregnancy. *J. Periodontol. Res.* 15:111-122.
2. Loesche, W.J., S.A. Syed, B.E. Laughon and J. Stoll. 1982. The bacteriology of acute necrotizing ulcerative gingivitis. *J. Periodontol.* 53:223-230.
3. Mashimo, P.A., Y. Yamamoto, J. Slots, B.H. Park and R.J. Genco. 1983. The periodontal microflora of juvenile diabetics. Culture, immunofluorescence, and serum antibody levels. *J. Periodontol.* 54:420-430.
4. Moore, W.E.C., L.V. Holdeman, R.M. Smibert, I.J. Good, J.A. Burmeister, K.G. Palcanes and R.R. Ranney. 1982. Bacteriology of experimental gingivitis in young adult humans. *Infect. Immun.* 38:651-667.
5. Socransky, S.S., A.C.R. Tanner, A.D. Haffajee, J.D. Hillman and J.M. Goodson. 1982. *In Host-Parasite interaction in periodontal disease*. Ed. R.J. Genco and S.E. Mergenhagen, pp 1-12.

Role of Surgery in Treatment of Periodontal Diseases

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Surgery: That branch of medicine which treats disease, injury or deformity by manual or operative methods.

The above definition includes virtually all procedures involved in periodontal therapy. However this discussion will focus on procedures which allow deliberate manipulation of gingival soft tissues and/or alveolar bone in attempts to provide a healthy periodontium.

The spectrum of periodontal soft tissue surgery extends from resective procedures, removing soft tissue, and frequently bone, in order to create a more favourable environment, to those procedures aimed at providing access to the infected root surface without a major alteration in the position of the gingiva. In addition surgical techniques have been developed which rebuild lost tissue by grafting of soft tissue and/or bone.

Early attempts at soft tissue surgery in periodontal therapy were resective in nature, and removed gum in order to gain access to clean the tooth surface. The classical gingivectomy procedure became the standard resective technique for many years, and is still applied in certain cases. However it became apparent that improved access could be obtained without sacrificing all of the gingiva, and so various flap techniques evolved.

Flap procedures allow direct visual access to root surfaces and have the advantage also of permitting access to bone defects, while preserving existing soft tissue for wound coverage, thus promoting more rapid healing.

Only within the past few decades has the relationship between microbial plaques and periodontal diseases been clearly established. With knowledge of this relationship the approach to treatment of periodontal diseases has become less empirical. In like manner the documentation of controlled clinical trials comparing results obtained with different types of periodontal therapy, with and without deliberate surgical manipulation of soft tissues, have helped clarify the important aspects of therapy, and hopefully enable a high degree of predictability of our therapeutic result. Continuing research should help fur-

ther define objective criteria for the application of various therapeutic modalities.

The purpose of therapy for periodontal diseases is primarily the removal of the infecting agents and factors which foster their retention. Thus, the primary mode of therapy will be scaling and root planing. Where this does not produce an acceptable result, in terms of the parameters of health or disease, then we must question whether this is a result of reduced healing capacity of the tissues, for instance because of undiagnosed or uncontrolled systemic disease, or more commonly due to residual microbial deposits and associated retention factors. In this latter case we must further question whether such deposits have resulted from inadequate instrumentation skills, or from some retention factor which cannot be adequately eliminated by a blind tactile approach. In such cases, open surgical access may provide the desired objective.

Many of the parameters used in determining the state of periodontal health or disease do not distinguish very well between inflammation of the gingival soft tissues and that which destroys the periodontal attachment. Hence no single parameter is suitable as the sole criterion for evaluating periodontal response to therapy. In clinical practice we must use a combination of parameters to indicate control or progression, health or disease.

Parameters which have traditionally been used either provide a measure of the destruction which has already taken place, that is by increased probing depth/loss of attachment and radiographic bone loss. In a sequential series of evaluations, these can provide an indication of stability or otherwise of the treated result. However a more accurate clinical parameter is needed as an indication of potential attachment loss. The criteria usually applied to this problem all attempt to indicate the degree of tissue inflammation, by assessment of gingival colour, tone of tissue, presence or absence of exudate and particularly bleeding on light probing. Thus stability of the

treated result is equated with absence of gingival inflammation. An astute clinician may be able to distinguish the area of inflammation in relation to the attachment apparatus, i.e. inflammation at the base of a pocket would be considered more hazardous than inflammation at the gingival margin. However this does not objectively differentiate gingivitis from destructive periodontitis and further research is needed on this subject. Perhaps an objective microbial assay technique will eventually serve as a more precise indicator of potential attachment loss.

As a result of treatment, we would therefore expect

Reduction in inflammation

Reduction in bleeding tendency

Reduction in probing depth, often with a gain in clinical attachment

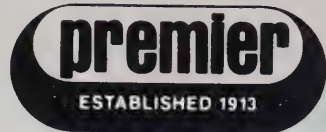
It must be recognized that in order to achieve these objectives a very meticulous cleaning of the infected root surfaces must be performed. The deeper the infection and the more complex the root surface anatomy, the more difficult this task will be. Hence we may infer that deeper pockets, and particularly those on multi-rooted teeth are more likely to require surgical access to perform adequate root planing.

Various longitudinal clinical trials have shown that the selection of a particular surgical modality is less important than the thoroughness of root surface instrumentation. Thus equally effective results have been obtained from resective and non-resective surgical modalities. No clear advantage has been shown as a result of surgically induced gingival recession. However in many cases, considerations beyond simply arrest or control of periodontal disease are important. For instance, restorative and aesthetic consideration may dictate the particular surgical modality to be employed.

Regardless of the type of periodontal therapy utilized there seems no doubt about the need for adequate maintenance care. Simply put, the consensus from several clinical trials demonstrates quite clearly that the key to long term disease control is adequate long term plaque control. Thus good treatment results have been reported with recall intervals varying from two weeks to three months. Longer intervals seem to be associated with recurrent signs of disease.

Provided that patients are recalled following active treatment for maintenance therapy (i.e. professional total plaque removal) on a regular basis, the parameters of disease activity remain improved over long periods of time. This is true even for patients who have less than impeccable home care.

A rational decision on whether to perform surgery, and which procedure to employ, should await the results of non-surgical therapy. At this time the tissues will be less inflamed, of firmer consistency, with reduced probing depths and with cleaner teeth. Surgery, if required, can be precise, quick, predictable, and will involve less risk of postoperative discomfort and complications.



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IMPORTANT NOTICE TO ALL OUR READERS

The January 1984 CDA Journal will be the last one distributed without charge to CDA non-members.

At the Annual Meeting of the Board of Governors of the Canadian Dental Association, held in Vancouver, B.C., September 23-24 1983, a resolution was adopted that called for the discontinuation of free distribution of the CDA Journal to non-members of the Association.

Besides being your last issue of the Journal if you are not a CDA member, the January 1984 Journal will also be the last Journal which will incorporate the present design. Starting February 1, 1984, the Journal will be getting a fresh, new look, incorporating many of the changes you asked for through our Readership Survey.

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REFERENCES

1. Johnson RH, Rozanis J, Schofield IDF et al. The Effect of Spiramycin on Plaque Accumulation and Gingivitis. *Canad Dent Assn J* 1978;10:456-60.
2. Bénazet F, Dubost M. Apparent Paradox of Antimicrobial Activity of Spiramycin. *Antibiotics Annual* 1958-59:211-20.
3. Mills WH, Thompson GW, Beagrie GS. Clinical Evaluation of Spiramycin and Erythromycin in Control of Periodontal Disease. *J Clin Periodontol* 1979;6:308-16.
4. Kernbaum S. La spiramycine: Utilisation en thérapeutique humaine. *Sem Hôp Paris* 1982; 58(5):289-97.

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BODY WEIGHT	DOSAGE IN CAPSULES ROVAMYCINE '250' (750,000 I.U. SPIRAMYCIN/CAPSULE)
15 kg	3 capsules/day
20 kg	4 capsules/day
30 kg	6 capsules/day

Spiramycin is stable in gastric juices and absorption is not affected by food. In severe infections, the daily dosage may be increased by one half. In the treatment of beta-hemolytic streptococcal infections, adequate Rovamycine dosage should be administered for 10 days.

AVAILABILITY

Rovamycine '250': Capsules of 750,000 I.U., bottles of 100.
Rovamycine '500': Capsules of 1,500,000 I.U., bottles of 100.

REVISED: April 1982



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Offices and Practices

BRITISH COLUMBIA — Dawson Creek. Busy, modern young practice with large patient load in agriculture/coal region for sale. Owner going to post-grad, U of T. 3 fully equipped ops., plumbed and wired for exp. to 5. Reasonable and negotiable. Contact Dr. M. Antosz 604-782-4440 or 604-782-1062. Ste. 201-1501 102 Ave. Dawson Creek, B.C. V1G 2E2.

BRITISH COLUMBIA — For Sale. Young, busy practice, 30 minutes from Vancouver in growing Fraser Valley suburb. Good exposure in small shopping mall located on the main street. This practice has five operators, (one for hygienist), private office, lab and lounge. Excellent opportunity for one or two young practitioners wishing to build a quality practice. Very low overhead. Phone 112-604-530-5015.

BRITISH COLUMBIA — Greater Vancouver area practice opportunity. 1400 sq ft space with leasehold improvements available December 1, 1983. Present three dentist practice is now relocating to larger premises to keep up with a growing patient flow. All equipment and patient files to be moved but some equipment could be negotiated for at a reduced cost to purchaser. For \$10,000.00 you can assume leased premises and leased improvements: low rent, good location over busy bank, high traffic volume, attractive two storey building located in central business area, three blocks from hospital with dental privileges, in a growing community with a stable economic base. Fair market value of leaseholds is \$42,750.00 with new floor coverings, recent painting and new lab area. Begin your practice in a beautiful sea-side community with instant equity in your leaseholds. Contact: Dr. David Merrill, Days 604-536-6711. evenings 604--531-3263.

BRITISH COLUMBIA — Downtown Vancouver. Very attractive space available for dental office/clinic in busy downtown shopping centre located within a multi-use complex including a 28 storey office tower. Premise is located across from drug store. For further information, please contact Leasing Manager, 604-689-7304.

ALBERTA — Edmonton. Newly incorporated Professional Corporation for sale. Unused. Requires name change only. Contact Dr. G. Parrott, 16426 87 Avenue, Edmonton, Alberta, T5R 4H2, phone 487-2929 Res. 484-8138 Off.

MANITOBA — Winnipeg. Active OMS in Winnipeg, Canada for sale. Surgeon retiring. Well established, well equipped, 1200 sq. ft. Flexible financing. Reply CDA Box No. 2183.

ONTARIO — For Sale. Well established busy general practice. Preventive philosophy. Expense sharing group. Ottawa area. Exceptional opportunity. Please reply to CDA Box No. 2189.

ONTARIO — Toronto. Operatory space available in established specialist office. Share waiting room and business area. Mid-town location suitable for other specialist. Reply CDA Box No. 2195.

EASTERN CANADA — One of the country's busiest and most lucrative 2-man practices is now up for sale (leasehold). Modern and well equipped. Each principal nets high six figures annually doing conscientious work. Rural area (industrial town). Excellent sports and recreation. 95% insurance. Reply CDA Box #2188.

NOVA SCOTIA — Chester. Established, high quality preventive practice for sale. One modern equipped operatory, low overhead, excellent location in business area with a view overlooking the ocean. This area offers excellent sailing, golf, curling, skiing and other outdoor recreation. Halifax located 40 minutes away. Owner returning to school. Contact P. O. Box 429, Chester N.S., B0K 1J0, 902-275-3330.

Associateship Available

NORTHWEST TERRITORIES — Yellowknife. Associate position available from January 1984. Reply CDA Box No. 2187.

ALBERTA — Associate/potential partner required in February. Contact: Dr. Azarko, 14938 Stony Plain Rd., Edmonton, T5P 3X8. Ph: (403) 483-7079.

ALBERTA — Associateship in Lac LaBiche. One hour north of Edmonton. Well established. Option to buy. For more information call 403-743-3570.

MANITOBA — Busy group practice. Seeking hard working associate, leading to partnership in western Manitoba. Surgical experience in hospital environment an asset. Please reply CDA Box No. 2191.

ONTARIO — Ottawa. Oral Maxillofacial surgery associateship available leading to early partnership. Long established, high gross, quality practice. Please reply to: Associateship, 526 Buchanan Crescent, Ottawa, Ontario, K1J 7V4 or call after 6 pm 613-746-3705.

NOVA SCOTIA — Halifax. Associates required for new 2500 sq ft, 6 operatory, mall office with pan and auto processing. This well established and growing high quality preventive practice, offers excellent opportunities and high income for young graduates or experienced dentists. Expansion space for ten operators. Offers excellent partnership potential. For further details please call collect (902) 429-5066 or write: Dr. Brian C. Davis, Suite 560, 5991 Spring Garden Rd. Halifax N.S. B3H 1Y6.

Opportunities Available

ALBERTA — Hygienist required. Dental clinic located in community of 8,000 population one hour away from Edmonton, Alberta, requires permanent full-time dental hygienist. Excellent atmosphere and remuneration. Reply: Hygienist P.O. Box 4006, Edmonton Alberta, T6E 4S8.

SASKATCHEWAN — University of Saskatchewan College of Dentistry. A position exists for a full-time faculty member in the Department of Oral Biology. Duties include the development and co-ordination of the teaching of Occlusion throughout the undergraduate program, and shared responsibility for the teaching of preclinical and/or clinical Prosthodontics (restorative.) The candidate will have demonstrated teaching and clinical competence in Prosthodontics with graduate qualification at the Master's level. Certification in the specialty area of Prosthodontics from an approved program is preferred. The candidate will be expected to be actively engaged in developing a research program in the general area of Prosthodontics/Occlusion. Consulting and private practice privileges to a maximum of two half days per week are permitted either on or off base. An intramural practice unit is provided for faculty who wish to utilize on base facilities. In accordance with Canadian immigration requirements, this advertisement is directed to Canadian citizens and permanent residents. Interested applicants should send Curriculum Vitae and related documentation with at least three names for reference purposes to: Dr. P.B. Innes, Department of Oral Biology, College of Dentistry, University of Saskatchewan, Saskatoon, Saskatchewan, S7N 0W0.

QUEBEC — Montreal. Full Time position. Division of Oral Diagnosis/Radiology (undergraduate level), McGill University, faculty of dentistry. The Faculty of Dentistry, McGill University, invites applications for a full-time, tenure track position at the Assistant Professor level in Oral Diagnosis/Radiology. Candidates must have successfully completed graduate studies in the dental diagnostic sciences with emphasis on oral radiology, and be eligible for licensure in the province of Quebec. Responsibilities include undergraduate teaching in oral radiology as well as oral diagnosis. The successful applicant will be expected to carry out research in these areas. Salary will be commensurate with qualifications and experience. Applications must be submitted prior to February 28, 1984, accompanied by a detailed curriculum vitae and two references, and should be addressed to: Dr. E. P. Millar, Chairman, Oral Diagnosis/Radiology Search Committee, McGill University, Faculty of Dentistry, 740 Dr. Penfield Avenue, Room 417, Montreal, Que., H3A 1A4.

QUEBEC — Montreal. Full-time position, division of periodontology (undergraduate level), McGill University, Faculty of Dentistry. The Faculty of Dentistry, McGill University, invites applications for a full-time, tenure track position at the Assistant Professor level in Periodontology. Candidates must have successfully completed graduate studies in Periodontology, and be eligible for licensure in the Province of Quebec. Responsibilities include teaching undergraduate students and academic administration. The successful applicant will be encouraged to carry out research in Periodontology. Private practice privileges are available. Salary will be commensurate with qualifications and experience. In accordance with Canadian immigration requirements, this advertisement is directed to Canadian citizens and permanent residents. Applications must be submitted prior to January 31, 1984, accompanied by a detailed curriculum vitae and two references, and addressed to: Dr. R. F. Harvey, Chairman, Search Committee, McGill University, Faculty of Dentistry, Montreal General Hospital, 1650 Cedar Avenue, Montreal, Que., H3G 1A4.

QUEBEC — Montreal. Geographic full-time dentist for Dental Department of major acute care hospital in Montreal affiliated with McGill University, Faculty of Dentistry. Some experience and knowledge of hospital dentistry required. Conditions of employment to include office expenses in hospital and fringe benefits. Teaching, research and clinical commitment. Knowledge of French and Quebec licence required. For further details write to: Mr. David R. Littman, Administrator, Department of Dentistry, Sir Mortimer B. Davis Jewish General Hospital, 3755 Cote Ste Catherine Road, Montreal, Quebec. H3T 1E2.

QUEBEC — Montreal. Geographic full-time periodontist for dental department of major acute care hospital in Montreal affiliated with McGill University, Faculty of Dentistry. Some experience and knowledge of hospital dentistry required. Conditions of employment to include office expenses in hospital and fringe benefits. Teaching, research and clinics commitment. Knowledge of French and Quebec license required. For further details write to: Mr. David Littman, Administrator, Department of Dentistry, Sir Mortimer B. Davis-Jewish General Hospital, 3755 Cote St. Catherine Road, Montreal, Quebec. H3T 1E2.

Opportunities Wanted

BRITISH COLUMBIA — Vancouver. Enthusiastic, quality conscious young dentist, with six years experience in private practice, seeks full time associateship in Vancouver. Please reply to CDA Box Number 2193.

EASTERN ONTARIO — Dentist in downtown Toronto hospital requires associateship in Ottawa-Kingston or surrounding areas to begin in summer of 84. Seeking part time or full time opportunities. Age 27, Please reply to CDA Box No. 2194 or call after hours (613) 766-7317.

ONTARIO — Ottawa. Energetic dentist recently graduated from UBC, currently doing hospital residency plans to move to Ottawa in July 1984. Interested in locum or associateship in general dentistry in Ottawa area. Please reply to CDA Box No. 2192.

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INFORMATION FOR CANDIDATES INTERESTED IN THE MEMBERSHIP AND FELLOWSHIP EXAMINATIONS OFFERED BY THE ROYAL COLLEGE OF DENTISTS OF CANADA

The examinations for Membership and Fellowship in the College are conducted annually in all dental specialties recognized by the Canadian Dental Association and/or the American Dental Association.

The opportunity to sit these examinations is offered to those who qualify following graduation from an approved graduate or post-graduate dental program.

The Membership examinations are normally held in June each year; and the deadline for applications is March 1st. The Fellowship examinations are normally held annually in December; the deadline for applications is August 31st.

Successful completion of the Membership examination qualifies the candidate for Membership in the College and eligibility to apply to the National Dental Examining Board of Canada for the NDEB/RCDC portability certificate.

Information concerning the examinations and application forms are available from:

Dr. John E. Speck
Registrar
The Royal College of Dentists of Canada
170 St. George Street
Suite 614
Toronto, Ontario
M5G 1G6



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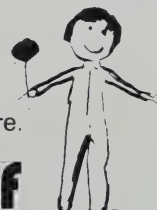
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Announcements/Avis

CANADA 1984

March/mars

Canadian Association of Oral and Maxillofacial Surgeons annual convention. March 14-20, 1984, Banff Alberta. Contact: Dr. R. E. Warren, Convention Chairman, #2 St. George's Crescent, Edmonton, Alberta, T5N 3M7. Phone 403-451-5884.

April/avril

Con-joint Convention of the Canadian Dental Association and Les Journées Dentaires du Québec, April 8-12, 1984, Palais du Congrès, Montréal, Que. Contact: Dr. Michel Jahjah, General Chairman, 3565 rue Berri, Bureau 200, Montréal, Que., H2L 4G3, 514-842-9112.

Canadian Academy of Restorative Dentistry annual meeting, Montreal, Quebec, April 6-7, 1984. Contact: Dr. Berl Mendel, #216-5757 Decelles Ave., Montreal, Que., H3S 2C3. 514-342-2549.

May/mai

Ontario Dental Association 117th Annual Spring Meeting, Toronto, Ontario, May 13-16 1984. The Sheraton Centre. Contact: Mrs. A. M. Durham, 234 St. George St., Toronto, Ont. M5R 2P1, 416-922-3900.

June/juin

XIII Biennial Conference on Dental Research and Education. University of Manitoba, Winnipeg, Manitoba. June 10-16, 1984. Contact: The Faculty of Dentistry, University of Manitoba, 780 Bannatyne Ave. Winnipeg Manitoba.

July/juillet

Ninth Annual Congress of Dietetics. Toronto Ontario, July 1-6, 1984. Hilton Harbour Castle Hotel. Topics covered will be varied. Continuing Education credits will be assessed for ADA and CDA registered dietitians. Contact: Congress Canada, Suite 603, 250 University Ave. Toronto, Ont. 416-591-1498.

International 1984

January/janvier

Bone-remodelling seminar by Dr. Leon Kussick, Honolulu, Hawaii, January 6-7, 1984. Contact: Carmen Education Seminars, P. O. Box 312, Abbotsford, B.C., V2S 4N8. Telephone 604-859-1855.

Le Centre of Pediatric Dentistry is organizing the "Second Dominican Congress of Pediatric Dentistry" in Santo Domingo, January 27-29 1984. Congress themes are Prevention and Clinical Aspects. Fees are \$50 U.S. Contact: Dr. Franklin Garcia-Godoy, Centre de Odontologie Pediatrica, P.O. Box 2753 Santo Domingo, Dominican Republic, Telephone 809-689-4277 afternoons and evenings.

International Dental Seminars announces the 10th International Alpine Dental Conference, Hotel Annapurna, Courchevel 1850, France, January 14-28, 1984. Contact: International Dental Seminars, 24 Cadogan Square, London SW1X 0JP England.

February/février

Miami Winter Meeting, Fontainebleu Hilton, Miami Beach Florida, February 2-4 1984. This is a program for international clinicians. Contact: the East Coast District Dental Society, 420 S. Dixie Highway, Suite 2-E, Coral Gables, Florida, 33146. 305-667-3647.

American Academy of Occlusodontia will hold its 28th annual meeting at the Essex Inn, Chicago Illinois, Feb. 18, 1984. Featured speaker will be Dr. H.T. Shillingburg. Contact: Dr. Jefferson Brock, 9631 Gross Point Rd., Skokie, Illinois, 60076.

Chicago Dental Society, 119th Midwinter Meeting, Chicago, Ill. February 19-22, 1984. Conrad Hilton Hotel. Contact: Chicago Dental Society, 30 North Michigan Ave. Chicago Ill. 60602, 312-726-4076 for information.

The sixth in a series of Arab health exhibitions, "Arab Health '84," will be held at the Jeddah Expo Centre, Jeddah, Saudi Arabia, February 19-23, 1984. Contact either: Virginia Kern, Fairs and Exhibi-

tions Ltd., 51 Doughty Street, London, WC1N 2Lb, England, Tel: 01-831-8981 or Al-Harithy Company for Exhibitions Ltd., P.O. Box 6249 Jeddah, Saudi Arabia, Tel: 6658194/5.

March/mars

La Commission d'Études Biomatériaux créée par le Centre Français de la Corrosion (Cefracor) organise à Strasbourg Germany au Palais de Conseil de l'Europe sur le thème "Corrosion et dégradation des biomatériaux et leurs incidences cliniques." les 5-7 Mars 1984. Pour tous renseignements s'adresser au Secrétariat du CEFACOR, 28 rue Saint Dominique 75 07 PARIS. Tél: 705.10.73 ou 705.39.26.

The First International Congress on dentistry, medical law and ethics will be held in Sedom, Dead Sea, Israel, March 13-18 1984. Contact: Dr. S. Perlmutter, Chairman, Organizing Committee, First International Congress on Dentistry, Medical Law and Ethics, P.O. Box 394, Tel Aviv 61003 Israel.

Dental Horizons Inc. will be giving a seminar entitled "Effective Practice Management Techniques: The Ideal Practice" at New York University, March 16 and March 23 1984. Contact: Dr. L. Zucker, 3201 Grand Concourse, Bronx, New York, 10468, 212-933-5510.

International Dental Seminars announces the 11th International Alpine Dental Conference, Hotel Annapurna, Courchevel 1850, France. March 17-24, 1984. Contact: International Dental Seminars, 24 Cadogan Square, London SW1X 0JP England.

Advanced Paedodontics Course 338, The British Council, London/Newcastle Upon Tyne, March 18-30, 1984. Contact: The British Council, c/o The British High Commission, 80 Elgin St., Ottawa, Ont. K1P 5K7.

April/avril

Dental Horizons Inc will be presenting a seminar entitled "Effective Practice Management Techniques: The Ideal Practice" Paradise Island, The Bahamas, April 4-8, 1984. Contact: Dr. L. Zucker, 3201 Grand Concourse, Bronx, New York, 10468, 212-933-5510 for information.

The American Association of Dental Consultants fifth annual spring workshop, Windsor, Ontario, Hilton International, April 28-29, 1984. Contact: Dr. Ed. Mazak, c/o Green Shield, 285 Giles Blvd. E., P.O. Box 1606, Windsor, Ont., N9A 6W1, 519-255-1133.

May/mai

La Société Française de Parodontologie will hold VIIIèmes Journées Françaises Internationales de Parodontologie, Arles, France, le 5-7 mai, 1984. Renseignement: Société Française de Parodontologie, 57 rue Amsterdam 75008 Paris, France.

June/juin

International Association of Oral Pathologists general meeting, to be held in Noordwijkerhout, the Netherlands, June 4-7 1984. Contact: Congress Secretaria, 2nd Meeting of the International Association of Oral Pathologists, c/o Mrs. R. Mooijen, AZVU Pathologisch Instituut, De Boelelaan 1117, MB Amsterdam, the Netherlands.

Dental Horizons Inc. are presenting a seminar entitled "Effective Practice Management Techniques: The Ideal Practice" Einstein, New York, June 8, 1984. Contact: Dr. L. Zucker, 3201 Grand Concourse, Bronx, New York, 10468, 212-933-5510.

104th Annual Meeting of the British Dental Association, in association with the 3rd International Quintessence Symposium and the 2nd International Symposium on ceramics. Barbican Centre, London, June 14-17, 1984. Contact: The British Dental Association, 64 Wimpole St. London, England, W1M 8AL.

The International Congress of Oral Implantologists World Congress VII for Oral Implantology, Munich, West Germany, June 21-24, 1984. Munich Sheraton Hotel. Contact: Clifford J. Kirschner, Executive Director, The International Congress of Oral Implantologists, P.O. Box 2277, Grand Central Station, New York, NY. 10163, 201-783-6300.

Florida Dental Association 1984 Florida Dental Congress, Buena Vista Palace, Lake Buena Vista, Orlando, Florida, June 23-25, 1984. Contact: Florida Dental

Association, 3021 Swann Ave. Tampa Fla. 33609, 813-877-7597.

The Sixth International Conference on Periodontal Research, Kibbutz Shefayim, Israel, June 19-22, 1984. Contact: The Sixth International Conference on Periodontal Research, P. O. Box 394, Tel Aviv, 61003, Israel.

August/août

The New Zealand Dental Association is holding its biennial conference, Auckland New Zealand, August 12-17 1984. Contact: Dr. N. P. Ewart, Conference Secretary, P.O. Box 28085 Auckland 5, New Zealand.

72nd Annual World Dental Congress of the FDI, Helsinki, Finland, August 25-31, 1984. Contact FDI '84, Hallitusk 8, SF 00100, Helsinki 10, Finland.

October/octobre

Eighth International Congress of Dental Technicians, Cologne, Germany, October 4-5, 1984. Congress-Centrum Ost of the Cologne Trade Fair Complex. Contact: Messe-und Ausstellungen Ges m.b.h. Koln, Messeplatz, Postfach 210760, D-5000, Koln, 21, Deutz.

Dental Horizons Inc is presenting a seminar entitled "Effective Practice Management Techniques: The Ideal Practice" Bronx New York, Oct. 28, 1984. Contact: Dr. L. Zucker, 3201 Grand Concourse, Bronx, New York, 10468, 212-933-5510.

November/novembre

11th Asian Pacific Dental Congress, Excelsior Hotel, Hong Kong, November 5-10 1984. Contact: Congress Secretariat, International Conference Consultants, 57, Wyndham St. 1st Floor, Central, Hong Kong.

1985+

Second International Conference "Clinical Factors and Mechanisms Influencing Bone Growth", University of California, Los Angeles, January 1985. Abstracts

submitted no later than June 30, 1984. Contact: Andrew Dixon or Bernard Sarnat, Dental Research Institute, School of Dentistry, School of Medicine, Centre for Health Sciences, University of California, Los Angeles, (UCLA), Los Angeles, California, 90024.

Canadian Academy of Restorative Dentistry, annual meeting, Ottawa, Ontario, September 27-28, 1985. Contact: Dr. Ed. J. Abrahams, #322-267 O'Connor St., Ottawa Ont., K2P 1V3, 613-236-1671.

Canadian Dental Association 1985 National Convention/l'Association dentaire canadienne, congrès national 1985, Ottawa Ontario, September 29-October 2, 1985.

Scandinavia's largest international trade fair, "Swedental '84" will be held in Stockholm Sweden, November 14-16 1984. Contact Stursberg/Hewitt/ Radley, U.S. Representatives, 6671 Sunset Blvd. Suite 1525, Los Angeles California. 90028, 213-462-6260.

The Indian Dental Association is presenting its 39th annual conference, Bombay India, last week of December 1984. Contact: Dr. L. K. Ghandi, Conference Secretary, 39th IDA Conference, C-56 N.D.S.E. Part-II, New Delhi, 110049.

The 24th Australian Dental Congress will be held in Brisbane Australia May 12-17 1985. The Congress is hosted by the Australian Dental Association. Contact: The Congress Secretariat, P.O. Box 29, Parkville, Vic. Australia, 3052.

Send Announcements to:
Envoyez les avis à:
CDA/L'ADC
1815 Alta Vista Dr.,
Ottawa, Ont. K1G 3Y6

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ANNUAL INDEX

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B: Briefly, **E:** Editorial, **O:** Opinion or column, **N:** News, **A:** Article (other than scientific), **SA:** Scientific article, **CR:** Case Report.

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Veuillez noter que l'index français comprend seulement les sujets d'actualité importants, les articles majeurs et les exposés scientifiques en français.

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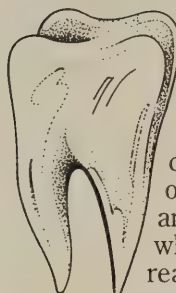
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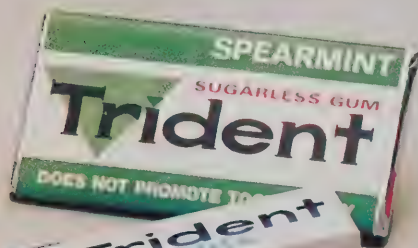


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